7TH AVENUE CREEK

FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS - PHASE 1

(CITY OF ST CHARLES AND EPA SECTION 319 FUNDED PROJECT)

CITY OF ST. CHARLES

KANE COUNTY, ILLINOIS

2021

CERTIFICATION

LICENSED PROFESSIONAL ENGINEER
DALE V. MARTING JR
062-050714
STATE OF ILLINOIS

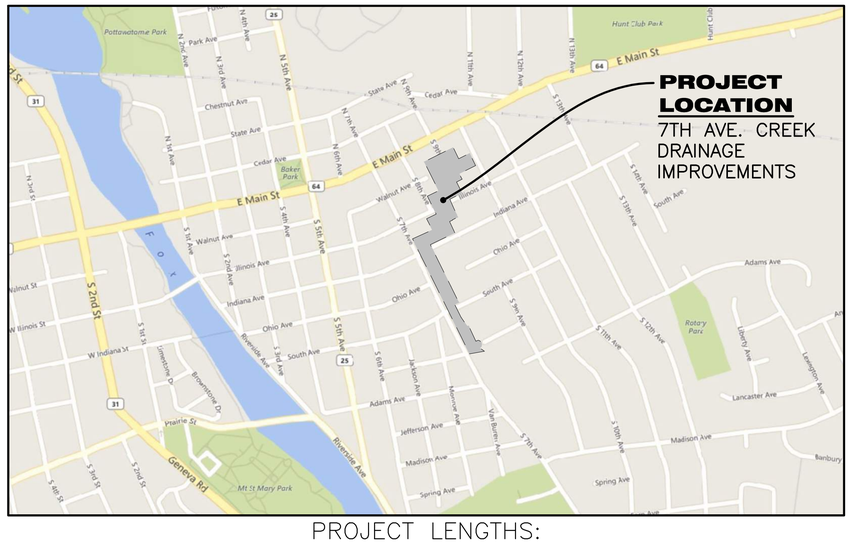
I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Illinois.

October 28, 2020

DALE V. MARTING JR, P.E. — DATE

License Number: 062-050714
My license renewal date is November 30, 2021.
Pages or sheets covered by this seal:
-

LOCATION MAP



NORTH
(N.T.S.)

PROJECT LENGTHS:
CREEK IMPROVEMENTS = 2,147 FT (0.41 MILES)
MULTI-USE PATH = 1,511 FT (0.29 MILES)
ROADWAY IMPROVEMENTS = 1,573 FT (0.30 MILES)
SANITARY SEWER IMPROVEMENTS = 1,826 FT (0.35 MILES)

CITY OF ST. CHARLES
ILLINOIS • SINCE 1834

CLIENT:
CITY OF ST. CHARLES
KEN JAY, P.E., CFM
PUBLIC WORKS MANAGER, ENGINEERING
CITY OF ST. CHARLES
2 E. MAIN STREET
ST. CHARLES, IL 60174
PHONE: 630-377-4405
DIRECT: 630-377-4418

ENGINEER / SURVEYOR:

HR GREEN INC.,
DALE MARTING, P.E., CFM
LEAD ENGINEER / PROJECT CONTACT
420 N. FRONT STREET
McHENRY, ILLINOIS 60050
(815) 759-8325
(815) 385-1778

BERNIE BAUER, P.L.S.
PROJECT LAND SURVEYOR
2363 SEQUOIA DRIVE, SUITE 101
AURORA, ILLINOIS 60506
(630) 553-7560
(630) 708-5033

AJAY JAIN, P.E., CFM
PRACTICE LEADER - WATER RESOURCE
PHONE: (815) 759-8331

- SEE SHEET 2 FOR INDEX OF SHEETS
- SEE SHEET 2 FOR BENCHMARK INFORMATION

HRGreen

420 N. FRONT STREET, SUITE 100 | McHENRY, IL 60050
Phone: 815.385.1778 | Toll Free: 800.728.7805 | Fax: 815.385.1781 | HRGreen.com

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SITE BENCHMARKS:

ELEVATIONS ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), PER DATASHEET FOR STATION STC 11 OF THE CITY OF ST. CHARLES VERTICAL CONTROL NETWORK

SOURCE BENCHMARK – ST. CHARLES STATION STC 11
2 1/2 INCH DIAMETER ALUMINUM DISK STAMPED – STC 11 2008, LOCATED UNDER AN ALUMINUM ACCESS LID. BENCHMARK IS LOCATED ON THE EAST SIDE OF 4TH AVENUE, APPROXIMATELY 75 FEET NORTH OF MAIN STREET, 77.5 FEET NORTH–NORTHEAST OF THE CENTER OF A WATER MANHOLE, 54.8 FEET SOUTH OF THE SOUTH FACE OF A UTILITY POLE, 48.3 FEET EAST OF THE EAST FACE OF BAKER MEMORIAL CHURCH, AND 7.4 FEET EAST OF THE BACK OF CURB ALONG THE EAST SIDE OF 4TH AVENUE.
ELEVATION: 730.21 (NAVD88)

SITE BENCHMARKS

BENCHMARK #3 – "ARROW" FLANGE BOLT ON THE FIRE HYDRANT LOCATED AT THE SOUTHWESTERLY QUADRANT OF MAIN STREET (IL RT. 64) AND 9TH AVENUE.
ELEVATION: 723.29 (NAVD88)

BENCHMARK #15 – CHISELED "X" ON THE NORTHEASTERY FLANGE BOLT ON THE FIRE HYDRANT LOCATED AT THE NORTHEASTERLY QUADRANT OF ILLINOIS AVENUE AND 9TH AVENUE.
ELEVATION: 724.98 (NAVD88)

BENCHMARK #16 – "TAG" FLANGE BOLT FIRE HYDRANT LOCATED AT THE NORTHWESTERLY QUADRANT OF ILLINOIS AVENUE AND 8TH AVENUE.
ELEVATION: 720.27 (NAVD88)

BENCHMARK #27 – SOUTHWEST BOLT ON THE TOP OF THE RETAINING WALL AT THE NORTHWESTERLY QUADRANT OF THE INTERSECTION OF 7TH AVENUE AND WASHINGTON AVENUE.
ELEVATION: 734.28 (NAVD88)

BENCHMARK #28 – NORTHWEST BOLT ON THE TOP OF THE RETAINING WALL AT THE SOUTHEASTERLY QUADRANT OF THE INTERSECTION OF 7TH AVENUE AND SOUTH AVENUE.
ELEVATION: 723.66 (NAVD88)

BENCHMARK #30 – CHISELED "X" ON THE EASTERLY FLANGE BOLT ON THE FIRE HYDRANT LOCATED AT THE NORTHWESTERLY QUADRANT OF 7THAVENUE AND 9TH AVENUE.
ELEVATION: 723.63 (NAVD88)

Dial 811 or 1-800-892-0123
Know what's below. Call before you dig.

JULIE DESIGN TICKET NUMBER:
A1301656 & X0420996

WITH THE FOLLOWING:
COUNTY KANE
CITY–TOWNSHIP ST. CHARLES, ST. CHARLES TWP
SEC. & 1/4 SEC. NO.# S.26,27,34&35/T.40N./R.8E

(2) Working Days before you dig
(Excluding Sat., Sun. & Holidays)

NOTE:

- CITY OF ST. CHARLES IS TO BE NOTIFIED 3 DAYS PRIOR TO CONSTRUCTION START.
- CITY OF ST. CHARLES SHALL BE INCLUDED IN ALL PRE–CONSTRUCTION MEETINGS.
- ANY KNOWN DISCREPANCIES ON THIS PLAN SET MUST BE BROUGHT TO THE ATTENTION OF CITY OF ST. CHARLES PRIOR TO THE START OF CONSTRUCTION.

UTILITY CONTACT INFORMATION

J.U.L.I.E.	DESIGN TICKET #A1861870	ILLINOIS JULIE, 800–892–0123
CITY CONTACT/ CITY ENGINEER	CITY OF ST. CHARLES KEN JAY, P.E., CFM PUBLIC WORKS MANAGER, ENGINEERING 2 E. MAIN STREET, ST. CHARLES, IL 60174	630–377–4486
SANITARY/ WATER	PUBLIC WORKS DEPARTMENT PUBLIC WORKS FIELD OFFICE 200 DEVEREAUX WAY ST. CHARLES, IL 60174	630–377–4405
ELECTRICAL POWER	CITY OF ST. CHARLES (ALONG JOHN DEUTSCH DR.) PAUL HOPKINS	630–377–4405
NATURAL GAS	NICOR GAS YVONNE HARRIS NEW BUSINESS COORDINATOR 90 N. FINLEY ROAD GLEN ELLYN, IL 60137	630–317–1684
TELEPHONE	ATT/DISTRIBUTION JANET AHERN 1000 COMMERCE DRIVE, FLOOR 1 OAK BROOK, IL 60523 JA1763@ATT.COM	630–573–5450 630–573–6414
CABLE/ INTERNET	COMCAST MARTHA GIERAS 680 INDUSTRIAL DRIVE ELMHURST, IL 60126	224–229–5862
	WIDE OPEN WEST PAUL FLINKOW 1674 FRONTENAC RD NAPERVILLE, IL 60563	630–536–3100 630–536–3139
	METRO FIBERNET, LLC KORIE NELLIS 3701 COMMUNICATIONS WAY EVANSVILLE, INDIANA 47715	812–213–1378
EPA	I.E.P.A. – PERMIT SECTION, DIVISION OF WATER POLLUTION P.O. BOX 19276 SPRINGFIELD, IL 62794–9276	217–782–0610
GEOTECHNICAL AND TESTING	MIDLAND STANDARD ENGINEERING MICHAEL PRIGGE, P.E. 558 PLATE DRIVE EAST DUNDEE, IL 60118	847–844–1895

SHEET INDEX

SHEET INDEX

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Xrefs: xg1–1–dh01

DRAWN BY: CTK JOB DATE: OCTOBER 28, 2020
APPROVED: DVM JOB NUMBER: 170818
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HRGreen
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FAX: 815.385.1781 | HRGreen.com

FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
INDEX OF SHEETS, SITE BENCHMARKS & UTILITY CONTACT INFORMATION

SHEET NO.
2

SYMBOL LEGEND

	EXISTING	PROPOSED
SANITARY MANHOLE		
SANITARY CLEAN OUT		
STORM MANHOLE		
STORM CATCH BASIN/INLET		
INLET		
FLARED END SECTION		
VALVE VAULT		
WATER SERVICE VALVE		
FIRE HYDRANT WITH AUXILIARY VALVE		
LIGHT POLE		
REGULATORY SIGN		
UTILITY POLE		
UTILITY BOX	GAS ELEC CATV	
MAILBOX		
WELL		
SANITARY SEWER		
SANITARY SERVICE	SS	SS
STORM SEWER		
CULVERT		
WATER MAIN	W	W
CASING PIPE		
TRENCH BACKFILL		W
ELECTRIC LINE	E	
OVERHEAD ELECTRIC LINE	OE	
UNDERGROUND ELECTRIC	UE	
TELEPHONE LINE	T	
GAS LINE	G	
CABLE TV LINE	CATV	
FIBER OPTIC LINE	FO	
TREE LINE		
TREE		
CONTOURS		
SPOT ELEVATION	EXIST	PROP
FENCE	x	x
DRAINAGE DIRECTION ARROW		
DRAINAGE 10–100 YEAR OVERFLOW DIRECTION ARROW		
REMOVAL (LINEAR ITEMS)		
REMOVAL (ITEMS)		X
UTILITY SEPARATION		

ABV	ABOVE
A/C	ACCESS CONTROL
AC	ACRE
ADJ	ADJUST
AS	AERIAL SURVEYS
AGG	AGGREGATE
AH	AHEAD
&	AND
APT	APARTMENT
ASPH	ASPHALT
AUX	AUXILIARY
AGS	AUXILIARY GAS VALVE (SERVICE)
AVE	AVENUE
AX	AXIS OF ROTATION
BK	BACK
B–B	BACK TO BACK
BKPL	BACKPLATE
B	BARN
BARR	BARRICADE
BGN	BEGIN
BM	BENCHMARK
BIND	BINDER
BIT	BITUMINOUS
BTM	BOTTOM
BLVD	BOULEVARD
BRK	BRICK
BBOX	BUFFALO BOX
BLDG	BUILDING
CIP	CAST IRON PIPE
CB	CATCH BASIN
C–C	CENTER TO CENTER
CL	CENTERLINE OR CLEARANCE
CL–E	CENTERLINE TO EDGE
CL–F	CENTERLINE TO FACE
CTS	CENTERS
CERT	CERTIFIED
CHSLD	CHISELED
CS	CITY STREET
CP	CLAY PIPE
CLSD	CLOSED
CLID	CLOSED LID
CT	COAT OR COURT
COMB	COMBINATION
C	COMMERCIAL BUILDING
CE	COMMERCIAL ENTRANCE
CONC	CONCRETE
CONST	CONSTRUCT
CONTD	CONTINUED
CONT	CONTINUOUS
COR	CORNER
CORR	CORRUGATED
CMP	CORRUGATED METAL PIPE
CNTY	COUNTY
CH	COUNTY HIGHWAY
CSE	COURSE
XSECT	CROSS SECTION
m^3	CUBIC METER
mm^3	CUBIC MILLIMETER
CU YD	CUBIC YARD
CULV	CULVERT
C&G	CURB & GUTTER
D	DEGREE OF CURVE
DC	DEPRESSED CURVE
DET	DETECTOR
DIA	DIAMETER
DIST	DISTRICT
DOM	DOMESTIC
DBL	DOUBLE
DSEL	DOWNSTREAM ELEVATION
DSFL	DOWNSTREAM FLOWLINE
DR	DRAINAGE OR DRIVE
DI	DRAINAGE INLET OR DROP INLET
DRV	DRIVEWAY
DCT	DUCT
EA	EACH
EB	EASTBOUND
EOP	EDGE OF PAVEMENT
E–CL	EDGE TO CENTERLINE
E–E	EDGE TO EDGE
EL	ELEVATION
ENTR	ENTRANCE
EQU	EQUIVILENT
EXC	EXCAVATION
EX	EXISTING
EXPWAY	EXPRESSWAY
E	EXTERNAL DISTANCE OF HORIZONTAL CURVE
E	OFFSET DISTANCE TO VERTICAL CURVE
F–F	FACE TO FACE
FA	FEDERAL AID
FAI	FEDERAL AID INTERSTATE
FAP	FEDERAL AID PRIMARY
FAS	FEDERAL AID SECONDARY
FAUS	FEDERAL AID URBAN SECONDARY
FP	FENCE POST
FE	FIELD ENTRANCE
FH	FIRE HYDRANT
FL	FLOW LINE
FB	FOOT BRIDGE
FDN	FOUNDATION
FR	FRAME
F&G	FRAME & GRATE
FRWAY	FREEWAY
GAL	GALLON
GALV	GALVANIZED
G	GARAGE
GM	GAS METER
GV	GAS VALVE
GRAN	GRANULAR
GR	GRATE
GRVL	GRAVEL
GND	GROUND
GUT	GUTTER
GP	GUY POLE
GW	GUY WIRE
HH	HANDHOLE
HATCH	HATCHING
HD	HEAD
HDW	HEADWALL
HDUTY	HEAVY DUTY
ha	HECTARE
HMA	HOT MIX ASPHALT
HWY	HIGHWAY
HORIZ	HORIZONTAL
HSE	HOUSE
IL	ILLINOIS
IMP	IMPROVEMENT
IN DIA	INCH DIAMETER
INCL	INCLUDE / INCLUDED
INL	INLET
INST	INSTALLATION
IDS	INTERSECTION DESIGN STUDY
INV	INVERT
IP	IRON PIPE
IR	IRON ROD
JT	JOINT
kg	KILOGRAM
km	KILOMETER
LS	LANDSCAPING
LN	LANE
LT	LEFT
LP	LIGHT POLE
LGT	LIGHTING
LF	LINEAL FEET OR LINEAR FEET
L	LITER OR CURVE LENGTH
LC	LONG CHORD
LNG	LONGITUDINAL
L SUM	LUMP SUM
MACH	MACHINE
MB	MAIL BOX
MH	MANHOLE
MATL	MATERIAL
MED	MEDIAN
m	METER
METH	METHOD
M	MID–ORDINATE
mm	MILLIMETER
mm DIA	MILLIMETER DIAMETER
MIX	MIXTURE
MBH	MOBILE HOME
MOD	MODIFIED
MFT	MOTOR FUEL TAX
N & BC	NAIL & BOTTLE CAP
N & C	NAIL & CAP
N & W	NAIL & WASHER
NOAA	NATIONAL OCEANIC ATMOSPHERIC ADMINISTRATION
NC	NORMAL CROWN
NB	NORTHBOUND
NE	NORTHEAST
NW	NORTHWEST
OLID	OPEN LID
PAT	PATTERN
PVD	PAVED
PVMT	PAVEMENT
PM	PAVEMENT MARKING
PED	PEDESTAL
PNT	POINT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION OF HORIZONTAL CURVE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENCY
POT	POINT ON TANGENT
POLYETH	POLYETHYLENE
PCC	PORTLAND CEMENT CONCRETE
PP	POWER POLE OR PRINCIPAL POINT
PRM	PRIME
PE	PRIVATE ENTRANCE
PROF	PROFILE
PGL	PROFILE GRADELINE
PROJ	PROJECT
P.C.	PROPERTY CORNER
PL	PROPERTY LINE
PR	PROPOSED
R	RADIUS
RR	RAILROAD
RRS	RAILROAD SPIKE
RPS	REFERENCE POINT STAKE
REF	REFLECTIVE
RCCP	REINFORCED CONCRETE CULVERT PIPE
REINF	REINFORCEMENT
REL	RELOCATE
REM	REMOVAL / REMOVE
RC	REMOVE CROWN
REP	REPLACEMENT
REST	RESTAURANT
RESURF	RESURFACING
RET	RETAINING
RT	RIGHT
ROW	RIGHT–OF–WAY
RD	ROAD
RDWY	ROADWAY
RTE	ROUTE
SAN	SANITARY
SANS	SANITARY SEWER
SEC	SECTION
SEED	SEEDING
SHAP	SHAPING
S	SHED
SH	SHEET
SHLD	SHOULDER
SW	SIDEWALK OR SOUTHWEST
SIG	SIGNAL
SOD	SODDING
SM	SOLID MEDIAN
SB	SOUTHBOUND
SE	SOUTHEAST
SPL	SPECIAL
SD	SPECIAL DITCH
SQ FT	SQUARE FEET
m^2	SQUARE METER
mm^2	SQUARE MILLIMETER
SQ YD	SQUARE YARD
STB	STABILIZED
STD	STANDARD
SBI	STATE BOND ISSUE
SR	STATE ROUTE
STA	STATION
SPBGR	STEEL PLATE BEAM GUARDRAIL
SS	STORM SEWER
STY	STORY
ST	STREET
STR	STRUCTURE
e	SUPERELEVATION RATE
S.E. RUN.	SUPERELEVATION RUNOFF LENGTH
SURF	SURFACE
SMK	SURVEY MARKER
T	TANGENT DISTANCE
T.R.	TANGENT RUNOUT DISTANCE
TEL	TELEPHONE
TB	TELEPHONE BOX
TP	TELEPHONE POLE
TEMP	TEMPORARY
TBM	TEMPORARY BENCH MARK
TD	TILE DRAIN
TBE	TO BE EXTENDED
TBR	TO BE REMOVED
TBS	TO BE SAVED
TWP	TOWNSHIP
TR	TOWNSHIP ROAD
TS	TRAFFIC SIGNAL
TSCB	TRAFFIC SIGNAL CONTROL BOX
TSC	TRAFFIC SYSTEMS CENTER
TRVS	TRANSVERSE
TRVL	TRAVEL
TBF	TRENCH BACKFILL
TRN	TURN
TY	TYPE
T–A	TYPE A
TYP	TYPICAL
UNDGND	UNDERGROUND
USGS	U.S. GEOLOGICAL SURVEY
USEL	UPSTREAM ELEVATION
USFL	UPSTREAM FLOWLINE
UTIL	UTILITY
VBOX	VALVE BOX
VV	VALVE VAULT
VLT	VAULT
VEH	VEHICLE
VP	VENT PIPE
VERT	VERTICAL
VC	VERTICAL CURVE
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
WM	WATER METER
WV	WATER VALVE
WMAIN	WATER MAIN
WB	WESTBOUND
WILDFL	WILDFLOWERS
W	WITH
WO	WITHOUT

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FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
LEGEND AND ABBREVIATIONS SHEET

SHEET NO. 3

Xrefs: xg-1-dh01 xg-0-Abbr

GENERAL NOTES:

1. ALL ITEMS OF THIS PROJECT SHALL BE GOVERNED BY SPECIFICATIONS INCLUDED IN THE DOCUMENTS LISTED BELOW:

   A. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PREPARED BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS AND ADOPTED BY SAID DEPARTMENT (LATEST EDITION).
   B. "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (LATEST EDITION).
   C. "BUREAU OF DESIGN & ENVIRONMENT MANUAL" (BDE) BY ILLINOIS DEPARTMENT OF TRANSPORTATION (LATEST EDITION)
   D. "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" – FEDERAL HIGHWAY ADMINISTRATION MUTCD (LATEST EDITION).
   E. "ILLINOIS SUPPLEMENT TO THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (LATEST EDITION).
   F. "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" (LATEST EDITION).
   G. "ILLINOIS URBAN MANUAL" PREPARED BY THE U.S. DEPARTMENT OF AGRICULTURE NRCS AND MAINTAINED BY THE ASSOCIATION OF ILLINOIS SOIL AND WATER CONSERVATION DISTRICTS (LATEST EDITION).
   H. "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" BY IEPA, ILLINOIS URBAN MANUAL – A TECHNICAL MANUAL DESIGNED FOR URBAN ECOSYSTEM PROTECTION AND ENHANCEMENT, (LATEST EDITION).
   I. "KANE COUNTY STORMWATER MANAGEMENT ORDINANCE"
   J. "CITY OF ST. CHARLES STORMWATER MANAGMENT ORDINANCE"
   K. CITY OF ST. CHARLES DESIGN AND INSPECTION POLICY MANUAL.

2. COORDINATION WITH UTILITIES

   A. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED BY J.U.L.I.E (811) OR (1-800-892-0123) AND THE CITY OF ST. CHARLES (1-630-377-4406) AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS AS PROVIDED FOR IN THE STANDARD SPECIFICATIONS.

   B. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORD INFORMATION AND MAY NOT BE ACCURATE. WHERE CONFLICT EXISTS BETWEEN EXISTING UTILITIES AND THE PROPOSED UNDERGROUND PIPING REQUIRING A REVISION TO THE PLANS, SUCH CONSTRUCTION SHALL NOT BE UNDERTAKEN UNTIL SUCH CHANGES ARE APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL REPORT ALL SUCH CONFLICTS IMMEDIATELY TO THE ENGINEER.

   C. ALL EXISTING UTILITIES WITHIN THE PROJECT AREA SHALL BE REMOVED AND RELOCATED, IF NECESSARY, FOR CONSTRUCTION BY THE UTILITY COMPANY WHICH HAS JURISDICTION OVER IT. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING WITH THE APPROPRIATE UTILITY COMPANY.

   D. WHERE PROPOSED WATER MAIN CROSSES UNDER EXISTING GAS MAIN THE CONTRACTOR SHALL PROVIDE EXTRA CARE WHEN INSTALLING PROPOSED WATER MAIN TO PREVENT DAMAGE TO EXISTING GAS MAIN.

3. CONSTRUCTION OF UNDERGROUND UTILITIES

   A. EXCAVATION: WHERE WORKING CONDITIONS AND RIGHT-OF-WAY PERMIT, PIPE LINE TRENCHES WITH SLOPING SIDES MAY BE USED. THE SLOPES SHALL NOT EXTEND BELOW THE TOP OF THE PIPE, AND TRENCH EXCAVATIONS BELOW THIS POINT SHALL BE MADE WITH VERTICAL SIDES WITH WIDTHS NOT EXCEEDING THOSE SPECIFIED HEREIN FOR THE VARIOUS SIZES OF PIPE. OPEN-CUT TRENCHES SHALL BE SHEETED AND BRACED AS REQUIRED BY THE GOVERNING STATE AND FEDERAL LAWS AND MUNICIPAL ORDINANCES, AND AS MAY BE NECESSARY TO PROTECT LIFE, PROPERTY, OR THE WORK. WHERE FIRM FOUNDATION IS NOT ENCOUNTERED AT THE GRADE ESTABLISHED DUE TO UNSUITABLE SOIL, ALL SUCH UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH APPROVED COMPACTED GRANULAR MATERIAL.

   B. WIDTH OF TRENCH: THE MAXIMUM WIDTH OF TRENCH AT THE TOP OF THE PIPE SHALL BE AS SHOWN IN THE TRENCH DETAILS.

   C. RESTORATION OF DRAINAGE: AS SOON AS POSSIBLE AFTER BACKFILLING THE TRENCH, ALL DITCHING, GRADING AND SHAPING NECESSARY TO RESTORE THE ORIGINAL DRAINAGE IN THE AREA OF WORK SHALL BE PERFORMED. CULVERTS REMOVED DURING THE COURSE OF THE WORK SHALL BE REPLACED AS SOON AS PRACTICABLE.

   D. UTILITIES IN EMBANKMENT SECTION. ALL EMBANKMENT MATERIAL WHICH IS TO BE PLACED WITHIN THE AREA OF INFLUENCE OF PROPOSED UNDERGROUND UTILITIES, AS SHOWN ON THE PLANS, INCLUDING STORM SEWER, WATER MAIN, AND SANITARY SEWER, SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR. THE AREA OF INFLUENCE SHALL BE DETERMINED AS FOLLOWS:

      a. HORIZONTAL ALIGNMENT: THE HORIZONTAL AREA OF INFLUENCE SHALL BE THAT AREA 5 FOOT FROM BOTH SIDES OF THE PROPOSED TRENCH ALIGNMENT.
      b. VERTICAL: THE VERTICAL AREA OF INFLUENCE SHALL BE DETERMINED AS THAT AREA LOCATED DIRECTLY UNDER THE HORIZONTAL ALIGNMENT AS DEFINED IN (1) FROM THE BOTTOM OF THE PROPOSED SUBGRADE TO THE TOP OF THE REMAINING IN-SITU MATERIAL AFTER TOPSOIL STRIPPING AND UNDERCUTTING AS DIRECTED BY THE ENGINEER OR AS SHOWN ON THE PLANS.
      c. THE SUBGRADE SHALL BE FREE OF UNSUITABLE MATERIAL AND SHALL BE COMPACTED TO A MINIMUM OF NINETY-FIVE PERCENT (95%) OF MODIFIED PROCTOR DENSITY. TESTING FOR COMPACTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL TOPSOIL AND ANY ORGANIC MATERIALS SHALL BE REMOVED.
      d. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.
      e. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL PERMITS INCLUDING MUNICIPAL PERMITS FOR ALL PROPOSED IMPROVEMENTS ACCORDING TO THE PLANS DESIGNATED AS "7TH AVENUE CREEK FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1."

4. STORM SEWERS SHALL BE LAID STRAIGHT IN BOTH HORIZONTAL AND VERTICAL PLANES BETWEEN STRUCTURES UNLESS OTHERWISE APPROVED BY THE CITY OF ST. CHARLES. NO STOCKPILING OF SPOILS WILL BE ALLOWED IN SPECIAL MANAGEMENT AREAS SUCH AS FLOODWAYS, FLOODPLAINS AND WETLANDS.

5. WATER MAIN

   A. WHEN REQUESTED BY THE CITY OF ST. CHARLES, THE CONTRACTOR SHALL SALVAGE AND DELIVER TO THE VILLAGE ANY EXISTING VALVES, CASTINGS, OR HYDRANTS FROM THE ABANDONED WATER MAIN. ALL OTHER PIPE AND APPURTENANCES REMOVED FROM THE ABANDONED WATER MAIN SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
   B. TEMPORARY SUPPORT OR RELOCATION OF EXISTING UTILITIES MAY BE REQUIRED AS A RESULT OF CONSTRUCTION OF THIS PROJECT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE REQUIRED WORK WITH THE RESPECTIVE UTILITY COMPANIES IN ORDER TO AVOID UNNECESSARY DELAYS TO CONSTRUCTION. THE CONTRACTOR SHALL WORK CLOSELY WITH THE UTILITIES TO LOCATE, PLAN, AND SUPPORT THESE FACILITIES IN A MANNER WHICH MINIMIZES UTILITY SHUT-OFF AND KEEPS THE PROJECT ON SCHEDULE.
   C. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO INDIVIDUAL PROPERTIES DURING CONSTRUCTION. PROPERTY OWNERS SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF WORK THAT WOULD AFFECT OR ALTER THEIR ACCESS. TEMPORARY ACCESS DRIVES SHALL BE PROVIDED FOR ALL PROPERTIES IF ACCESS IS TO BE DISRUPTED FOR AN EXCESSIVE AMOUNT OF TIME, AS DETERMINED BY OWNER AND ENGINEER. TEMPORARY ACCESS DRIVES SHALL CONSIST OF FULL-DEPTH CLEAN CRUSHED STONE PROPERLY COMPACTED.
   D. OWNER WILL PROVIDE THE CONTRACTOR WATER FOR FLUSHING, DISINFECTION, AND PRESSURE TESTING OPERATIONS FREE OF CHARGE. WATER WILL BE MADE AVAILABLE THROUGH EXISTING WATER MAIN CONNECTIONS OR NEARBY FIRE HYDRANTS. THE CONTRACTOR SHALL PROVIDE BACKFLOW PREVENTION DEVICES FOR FIRE HYDRANT CONNECTIONS. THE CONTRACTOR SHALL TAKE REASONABLE PRECAUTIONS FOR WATER CONSERVATION.
   E. NO EXCAVATIONS WILL BE PERMITTED TO REMAIN OPEN OVER ANY WEEKEND AND NO EXCAVATIONS SHALL BE LEFT OPEN OVERNIGHT IN ANY RESIDENTIAL AREA.
   F. THE ENGINEER AND CITY ARE NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS OR FOR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS.
   G. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A PLAN FOR PHASING THE NEW WATER MAIN INTO SERVICE, INCLUDING BUT NOT LIMITED TO: A SUMMARY OF SHUT-DOWNS, PRESSURE TESTING PROCEDURES, METHODS OF CHLORINATION, SEQUENCE OF CONNECTIONS, AND ABANDONMENTS OF THE EXISTING WATER MAIN.
   H. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF NEW WATER MAINS AND THE ABANDONMENT OF EXISTING WATER MAINS WITH THE CITY OF ST. CHARLES. A MINIMUM OF TWO (2) WEEKS NOTICE SHALL BE PROVIDED TO THE CITY PRIOR TO THE OPERATION OF VALVES, WATER MAIN SHUT-DOWNS, PLACING WATER MAINS INTO SERVICE, PRESSURE TESTING, FLUSHING, AND CHLORINATION ACTIVITIES. THE CONTRACTOR SHALL NOTIFY RESIDENTS AND BUSINESSES AT LEAST 48 HOURS PRIOR TO ANY DISRUPTION OR SHUT-DOWN.

7. NO CONSTRUCTION PLANS SHALL BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY MARKED "FOR CONSTRUCTION." PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT SAME TO THE ENGINEER BEFORE DOING ANY WORK, OTHERWISE THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTIONS FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSIONS OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTIONS, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE.

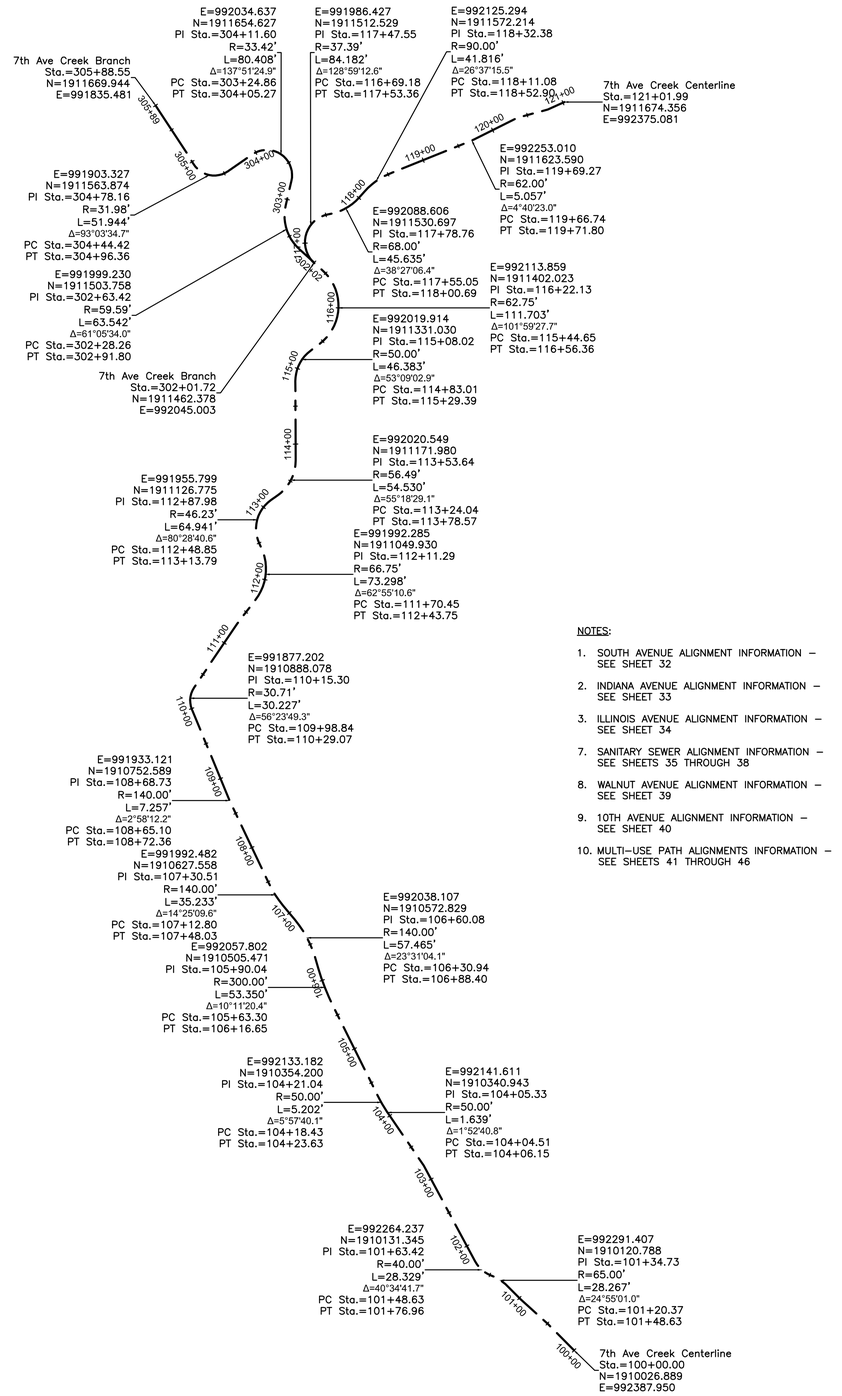
   IN THE EVENT OF ANY DOUBT OR QUESTION ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.

8. WHEN CONSTRUCTION OPERATIONS TAKE PLACE ADJACENT TO PUBLIC ROADWAYS THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL LOOSE DEBRIS DEPOSITED ON THE PAVEMENT. THE STOCK PILING OF SPOILS FROM FOUNDATIONS OR UTILITY EXCAVATIONS WILL NOT BE ALLOWED ON THE PAVEMENT OR IN SPECIAL MANAGEMENT AREAS SUCH AS FLOODPLAINS OR WETLANDS.

9. ALL WORK PERFORMED RELATIVE TO THIS IMPROVEMENT SHALL COMPLY WITH ALL APPLICABLE RULES AND REGULATIONS OF O.S.H.A.

10. NO DIMENSIONS SHALL BE ASSUMED BY SCALING.

11. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF THREE SANITARY FACILITIES AT ALL TIMES. ONE FACILITY WITHIN THE SOUTH AVENUE WORK ZONE, ONE FACILITY WITHIN THE INDIANA AVENUE WORK ZONE AND ONE FACILITY NEARBY THE ILLINOIS AVENUE WORK ZONE AT LOCATIONS APPROVED BY THE ENGINEER OR CITY.



NOTES:

1. SOUTH AVENUE ALIGNMENT INFORMATION – SEE SHEET 32
2. INDIANA AVENUE ALIGNMENT INFORMATION – SEE SHEET 33
3. ILLINOIS AVENUE ALIGNMENT INFORMATION – SEE SHEET 34
7. SANITARY SEWER ALIGNMENT INFORMATION – SEE SHEETS 35 THROUGH 38
8. WALNUT AVENUE ALIGNMENT INFORMATION – SEE SHEET 39
9. 10TH AVENUE ALIGNMENT INFORMATION – SEE SHEET 40
10. MULTI-USE PATH ALIGNMENTS INFORMATION – SEE SHEETS 41 THROUGH 46

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FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
GENERAL NOTES & 7TH AVENUE CREEK & BRANCH ALIGNMENTS

SHEET NO.
4

Xrefs: xgl-1-dn01

SPECIAL PROVISION	ITEM #	ITEM DESCRIPTION	UNITS	TOTAL QUAN.
	1	TREE REMOVAL (6 to 15 UNIT DIAMETER)	UNIT	1870
	2	TREE REMOVAL (OVER 15 UNIT DIAMETER)	UNIT	1332
	3	TREE TRUNK PROTECTION	EACH	11
	4	TREE ROOT PRUNING	EACH	11
	5	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU. YD.	1385
	6	CHANNEL EXCAVATION	CU. YD.	13850
*	7	FURNISH AND PLACE EMBANKMENT, SPECIAL	CU. YD.	50
	8	POROUS GRANULAR EMBANKMENT	CU. YD.	360
	9	TRENCH BACKFILL	CU. YD.	2650
	10	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	1520
	11	TOPSOIL EXCAVATION AND PLACEMENT	CU. YD.	3465
*	12	TOPSOIL FURNISH AND PLACE, 6"	SQ. YD.	695
	13	EXPLORATION TRENCH 72 INCHES DEPTH	LIN FT.	50
	14	EXPLORATION TRENCH 144 INCHES DEPTH	LIN FT.	50
	15	SEEDING, CLASS 1B	ACRE	1.125
	16	NITROGEN FERTILIZER NUTRIENT	LBS	101
	17	POTASSIUM FERTILIZER NUTRIENT	LBS	101
	18	MULCH, METHOD 2	ACRE	1.02
*	19	EROSION CONTROL BLANKET, DS75	SQ. YD.	1245
*	20	EROSION CONTROL BLANKET, S75-BN	SQ. YD.	4200
*	21	HEAVY EROSION CONTROL BLANKET, SC-150-BN	SQ. YD.	9000
	22	TREES, QUERCUS BICOLOR, 2.5" CALIPER	EACH	7
	23	TREES, PLATANUS OCCIDENTALIS, 2.5" CALIPER	EACH	8
	24	TREES, QUERCUS RUBBA, 2.5" CALIBER	EACH	21
	25	TREES, JUGLANS NIGRA, 2.5" CALIBER	EACH	4
	26	TREES, QUERCUS ROBUR, 2.5" CALIBER	EACH	5
	27	TREES, THUJA OCCIDENTALIS, 6' HIGH CALIBER	EACH	36
	28	TEMPORARY DITCH CHECKS	FOOT	660
	29	PERIMETER EROSION BARRIER	FOOT	3200
	30	INLET FILTERS	EACH	37
*	31	TEMPORARY EROSION CONTROL SEEDING	POUND	410
*	32	STONE RIPRAP, CLASS A1	SQ. YD.	2305
*	33	STONE RIPRAP, CLASS A5	SQ. YD.	1700
*	34	STONE HAND PLACED RIPRAP, CLASS A5	SQ. YD.	295
*	35	STONE RIPRAP, CLASS A7	SQ. YD.	31
	36	FILTER FABRIC	SQ. YD.	2305
	37	SUB-BASE GRANULAR MATERIAL, TYPE C, 4"	SQ. YD.	423

SPECIAL PROVISION	ITEM #	ITEM DESCRIPTION	UNITS	TOTAL QUAN.
	38	AGGREGATE BASE COURSE, TYPE B, 4"	SQ. YD.	340
	39	AGGREGATE BASE COURSE, TYPE B, 6"	SQ. YD.	1295
	40	AGGREGATE BASE COURSE, TYPE B, 12"	SQ. YD.	423
	41	BITUMINOUS MATERIALS (PRIME COAT)	LBS.	7740
	42	BITUMINOUS MATERIALS (TACK COAT)	LBS.	710
	43	HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50	TON	265
	44	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	74
	45	LEVELING BINDER (MACHINE METHOD), N50	TON	25
*	46	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6" (COMPLETE)	SQ. YD.	50
*	47	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3" (COMPLETE)	SQ. YD.	395
*	48	PORTLAND CEMENT CONCRETE SIDEWALK, 5" (COMPLETE)	SQ. FT.	3730
*	49	PROWAG CURBING	LIN FT	61
	50	DETECTABLE WARNINGS	SQ. FT.	104
	51	PAVEMENT REMOVAL	SQ. YD.	1335
	52	HOT-MIX ASPHALT SURFACE REMOVAL, BUTT JOINT	SQ. YD.	42
*	53	HOT-MIX ASPHALT SURFACE REMOVAL, EDGE GRIND	SQ. YD.	66
	54	DRIVEWAY REMOVAL	SQ. YD.	470
	55	SIDEWALK REMOVAL	SQ. FT.	4920
	56	COMBINATION CURB AND GUTTER REMOVAL	LIN FT.	1130
	57	CLASS D PATCHES, TYPE 4, 6"	SQ. YD.	1250
	58	CLASS D PATCHES, TYPE 4, 9.5"	SQ. YD.	200
*	59	REMOVAL OF EXISTING STRUCTURES (SOUTH AVE CULVERT)	EACH	1
*	60	REMOVAL OF EXISTING STRUCTURES (INDIANA AVE CULVERT)	EACH	1
*	61	REMOVAL OF EXISTING STRUCTURES (ILLINOIS AVE CULVERT)	EACH	1
*	62	REMOVAL OF EXISTING STRUCTURES (9TH AVE CULVERT)	EACH	1
*	63	CAST-IN-PLACE CONCRETE RETAINING WALL REMOVAL	LIN FT.	330
	64	STRUCTURE EXCAVATION	CU. YD.	31
	65	NAME PLATES	EACH	3
*	66	SEGMENTAL CONCRETE BLOCK WALL #1 (INDIANA AVE - SOUTH SIDE)	SQ. FT.	157
*	67	SEGMENTAL CONCRETE BLOCK WALL #2 (INDIANA AVE - NORTH SIDE)	SQ. FT.	217
*	68	SEGMENTAL CONCRETE BLOCK WALL #3 (ILLINOIS AVENUE - SOUTH SIDE)	SQ. FT.	88
*	69	SEGMENTAL CONCRETE BLOCK WALL #4 (ILLINOIS AVENUE - NORTH SIDE)	SQ. FT.	80
*	70	SEGMENTAL CONCRETE BLOCK WALL #5 (10TH AVENUE -WEST SIDE)	SQ. FT.	234
*	71	SEGMENTAL CONCRETE BLOCK WALL #6 (PEDESTRIAN PATH)	SQ. FT.	144
	72	PRECAST CONCRETE BOX CULVERT, 12' X 6'	LIN FT.	583
	73	BOX CULVERT END SECTIONS #1 (SOUTH AVENUE)	EACH	4
	74	BOX CULVERT END SECTIONS #2 (INDIANA AVENUE)	EACH	2

SPECIAL PROVISION	ITEM #	ITEM DESCRIPTION	UNITS	TOTAL QUAN.
	75	BOX CULVERT END SECTIONS #3 (ILLINOIS AVENUE)	EACH	2
	76	TRAVERSABLE PIPE GRATE	FOOT	559
	77	PRECAST REINFORCED CONCRETE FLARED END SECTIONS, 12"	EACH	1
	78	METAL END SECTIONS, 12"	EACH	1
	79	METAL END SECTIONS, 15"	EACH	2
	80	GRATING FOR CONCRETE FLARED END SECTION, 12"	EACH	1
	81	STORM SEWERS, CLASS B, TYPE 2, 12" PVC D3034 SDR-26	LIN FT.	324
	82	STORM SEWERS, CLASS A, TYPE 2, 15" RCP	LIN FT.	5
	83	STORM SEWERS, CLASS B, TYPE 2, 15" PVC D3034 SDR-26	LIN FT.	242
	84	STORM SEWER REMOVAL, 4"	LIN FT.	20
	85	STORM SEWER REMOVAL, 6"	LIN FT.	3
	86	STORM SEWER REMOVAL, 10"	LIN FT.	95
	87	STORM SEWER REMOVAL, 12"	LIN FT.	500
	88	STORM SEWER REMOVAL, 15"	LIN FT.	220
*	89	DUCTILE IRON WATER MAIN, CLASS 52, 8"	LIN FT.	150
*	90	WATER MAIN IN CASING PIPE, 8", DUCTILE IRON PIPE CLASS 52	LIN FT.	196
*	91	WATER MAIN CASING PIPE INSULATION	LIN FT.	169
*	92	CONNECTIONS TO EXISTING WATER MAIN	EACH	6
	93	CATCH BASINS, TYPE B, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	4
	94	CATCH BASINS, TYPE B, 4' DIAMETER, TYPE 11 FRAME AND GRATE	EACH	3
	95	INLETS, 2' DIAMETER, TYPE 11 FRAME AND GRATE	EACH	1
	96	MANHOLES TO BE ADJUSTED WITH NEW FRAME AND CLOSED LID, TYPE 1	EACH	2
	97	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 11 FRAME AND GRATE	EACH	1
	98	VALVE VAULTS TO BE ADJUSTED WITH NEW FRAME AND CLOSED LID, TYPE 1	EACH	1
*	99	TYPE 11 FRAME AND GRATE, SPECIAL	EACH	8
	100	REMOVING CATCH BASINS	EACH	3
	101	REMOVING MANHOLE	EACH	5
	102	REMOVING INLETS	EACH	9
	103	REMOVE EXISTING FLARED END SECTION	EACH	1
	104	REMOVE EXISTING VALVE AND VAULT	EACH	1
	105	COMBINATION CONCRETE CURB & GUTTER, B-6.12	LIN FT	1215
	106	CHAIN LINK FENCE, 5'	LIN FT	172
*	107	SPLIT RAIL WOOD FENCE	LIN FT	638
*	108	BOARD-ON-BOARD WOOD FENCE, 6'	LIN FT	88
	109	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1
	110	ON-SITE MONITORING OF REGULATED SUBSTANCES	DAYS	14
	111	SOIL DISPOSAL ANALYSIS	EACH	1

SPECIAL PROVISION	ITEM #	ITEM DESCRIPTION	UNITS	TOTAL QUAN.
	112	NON-SPECIAL WASTE DISPOSAL	CU. YD.	5108
	113	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1
	114	MOBILIZATION	L SUM	1
*	115	TRAFFIC CONTROL AND PROTECTION	L SUM	1
*	116	SIGN PANEL, TYPE 1	SQ. FT.	25.5
	117	TELESCOPING STEEL SIGN SUPPORT	FOOT	103
	118	THERMOPLASTIC PAVEMENT MARKING - LINE 6	LIN FT	65
	119	THERMOPLASTIC PAVEMENT MARKING - LINE 24	LIN FT	14
	120	CONSTRUCTION LAYOUT	L SUM	1
*	121	PEDESTRIAN TRUSS SUPERSTRUCTURE	L SUM	1
	122	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	1000
*	123	CONCRETE DEBRIS REMOVAL FROM CHANNEL	LIN FT.	595
*	124	REMOVE AND STORE SELECT FLAGSTONE	SQ. YD.	294
*	125	SET SELECT FLAGSTONE	SQ. YD.	294
*	126	SANITARY SEWER NEW DROP CONNECTION, 8"	EACH	1
*	127	SANITARY SEWER NEW DROP CONNECTION, 10"	EACH	1
*	128	NEW VALVE, 8" GATE VALVE	EACH	6
*	129	VALVE VAULTS, 5' DIAMETER VAULT WITH TYPE 1 FRAME, CLOSED LID	EACH	6
*	130	REMOVE SANITARY SERVICE, SPECIAL	LIN FT.	290
*	131	REMOVE SANITARY SEWER, 8", SPECIAL	LIN FT.	170
*	132	REMOVE SANITARY SEWER, 10", SPECIAL	LIN FT.	755
*	133	ABANDON & FILL EXISTING SANITARY SEWER, 6"	LIN FT	105
*	134	ABANDON & FILL EXISTING SANITARY SEWER, 10"	LIN FT.	111
*	135	REMOVE WATER MAIN, 6", SPECIAL	LIN FT	350
*	136	SANITARY SEWER BYPASS PUMPING	L SUM	1
*	137	SANITARY SEWERS, 8", POLYVINYL CHLORIDE ASTM D-3034 SDR 26	LIN FT	155
*	138	SANITARY SEWERS, 10", POLYVINYL CHLORIDE ASTM D-3034 SDR 26	LIN FT.	1290
*	139	SANITARY SEWERS, HORIZONTALLY DIRECTIONALLY DRILLED, 12"	LIN FT.	212
*	140	SANITARY MANHOLES, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	14
*	141	SANITARY SEWERS IN CASING PIPE, 10", POLYVINYL CHLORIDE ASTM D-3034 SDR 26	LIN FT.	81
*	142	SANITARY SEWER SERVICE, 6"	LIN FT.	80
*	143	SANITARY SERVICE CLEANOUT	EACH	1
*	144	TEMPORARY FLOW BYPASS	L SUM	1
*	145	DIVERSION WALL	EACH	2
*	146	SOIL PREPARATION	ACRE	3
*	147	SEEDING (SPECIAL - NATIVE SPECIES VARIOUS)	ACRE	3

SPECIAL PROVISION	ITEM #	ITEM DESCRIPTION	UNITS	TOTAL QUAN.
*	148	CROSS VANE SPECIAL	EACH	18
*	149	MONITORING AND MAINTENANCE	YEARS	3
*	150	GROUTING RIPRAP IN-PLACE	CU. YD.	17
*	151	MAINTAIN AND REPAIR RESIDENTIAL UP-LIGHTING SYSTEM	L SUM	1
*	152	ITEMS AS ORDERED BY THE ENGINEER	L SUM	1

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FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
SUMMARY OF QUANTITIES

SHEET NO.
5

Xrefs: xgt-1-dh01. xg-0-500

11TH AVE.
ILLINOIS AVE.
10TH AVE.
INDIANA AVE.
OHIO AVE.
9TH AVE.
SOUTH AVE.
WASHINGTON AVE.
TEMPORARY CONSTRUCTION EASEMENT
PERMANENT DRAINAGE EASEMENT
7TH AVENUE CREEK REALIGNMENT
MULTI-USE PATH
TEMPORARY CONSTRUCTION EASEMENT
7TH AVENUE CREEK REALIGNMENT
PERMANENT DRAINAGE EASEMENT
PERMANENT SANITARY SEWER EASEMENT
TEMPORARY CONSTRUCTION EASEMENT
PERMANENT DRAINAGE EASEMENT
TEMPORARY CONSTRUCTION EASEMENT
PROP. PEDESTRIAN BRIDGE
MULTI-USE PATH
9TH AVE.
MULTI-USE PATH
PERMANENT DRAINAGE EASEMENT
7TH AVE.
PROP. PRECAST BOX CULVERT (3)
7TH AVENUE CREEK REALIGNMENT
E. MAIN ST.
TEMPORARY CONSTRUCTION EASEMENTS
7TH AVENUE CREEK BRANCH REALIGNMENT
TEMPORARY CONSTRUCTION EASEMENTS
PROP. PRECAST BOX CULVERT (1)
8TH AVE.
WALNUT AVE.
ILLINOIS AVE.
PERMANENT DRAINAGE EASEMENT
PROP. PRECAST BOX CULVERT (2)
7TH AVENUE CREEK CONSTRUCTION LIMITS
TEMPORARY CONSTRUCTION EASEMENTS
7TH AVE.
E. MAIN ST.

PROJECT LEGENDS:

- DESIGNATES FLOODWAY LIMITS
- DESIGNATES FLOODPLAIN ZONE A-AE LIMITS (100 YEAR)
- DESIGNATES FLOODPLAIN ZONE X LIMITS (500 YEAR)
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)
- INDICATES ROAD RECONSTRUCTION, ROADWAY PATCH AND RESURFACING OR HMA MULTI-USE PATH
- INDICATES HMA OR PCC DRIVEWAY PAVEMENT
- INDICATES PCC SIDEWALK, 5"

0 30 60

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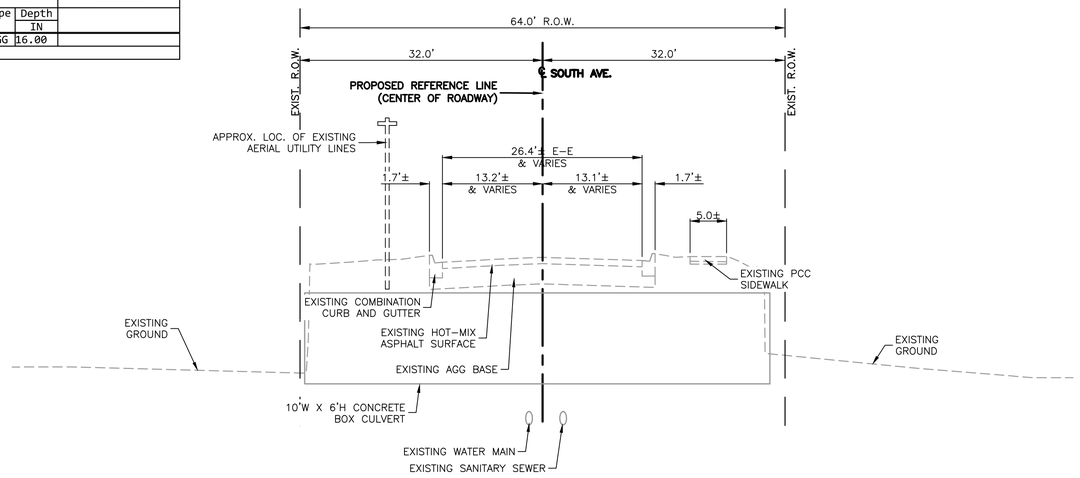
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
OVERALL VICINITY PLAN & EASEMENTS

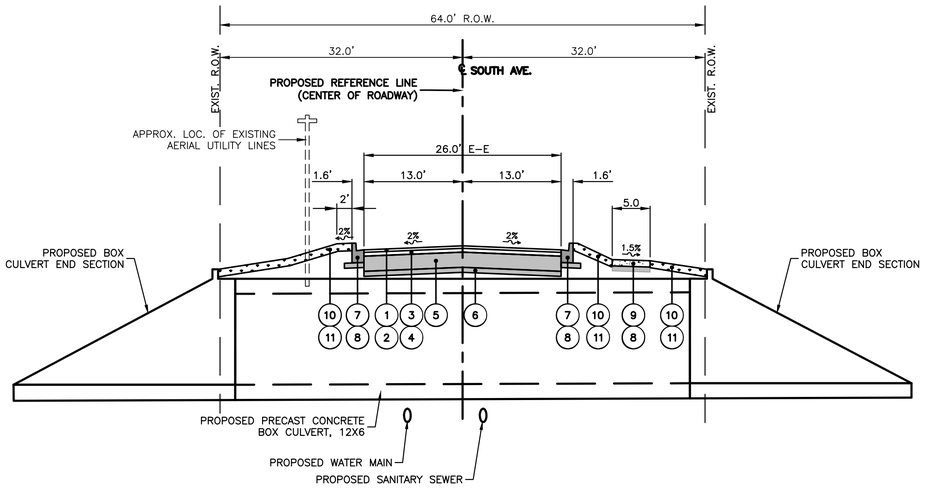
SHEET NO.
6

PAVEMENT CORES					SOUTH AVE.
Core No.	HMA		Base		Remarks
	Type	Depth IN	Type	Depth IN	
C-1	HMA	5.00	AGG	16.00	

RECONSTRUCTION SECTION



EXISTING SOUTH AVE. TYPICAL SECTION



PROPOSED SOUTH AVE. TYPICAL SECTION

LEGEND

1. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2"
2. BITUMINOUS MATERIALS (TACK COAT) – 0.05 LBS/SQ FT
3. HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 – 3"
4. BITUMINOUS MATERIALS (PRIME COAT) – 0.50 LBS/SQ FT
5. AGGREGATE BASE COURSE, TYPE B – 12"
6. SUBBASE GRANULAR MATERIAL, TYPE C – 4"
7. COMBINATION CONCRETE CURB AND GUTTER – B-6.12
8. AGGREGATE BASE COURSE, TYPE B – 4" (CA-6 GRADATION)
9. PORTLAND CEMENT CONCRETE SIDEWALK – 5"
10. SEEDING, CLASS 1B
11. TOPSOIL, EXCAVATION AND PLACEMENT – 6"

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ Ndes
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50	4% @ 50 Gyr.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	4% @ 50 Gyr.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ TD/IN.

THE "AC TYPE" FOR POLYMERIZED HMA MIXTURES SHALL BE "SBS/SBR PG 78-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISION.

FOR USE OF RECYCLED MATERIAL SEE SPECIAL PROVISIONS.

FOR BIDDING ONLY

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APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/26/2020 3:35:45 PM
CAD FILE: J:\2017\170818\CAD\Dwgs\C\7-10 ROADWAY TYPICAL SECTIONS.dwg

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HRGreen
ILLINOIS DESIGN FIRM # 184.001322
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McHENRY, ILLINOIS 60050
PHONE: 815.385.1778 | TOLL FREE: 800.728.7805
FAX: 815.385.1781 | HRGreen.com

FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

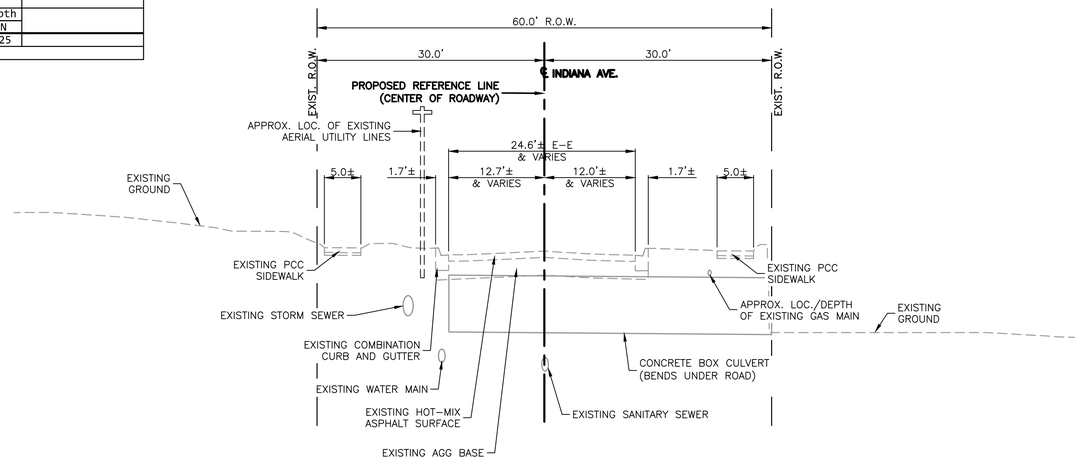
SHEETS
TYPICAL SECTIONS – SOUTH AVE

SHEET NO.
7

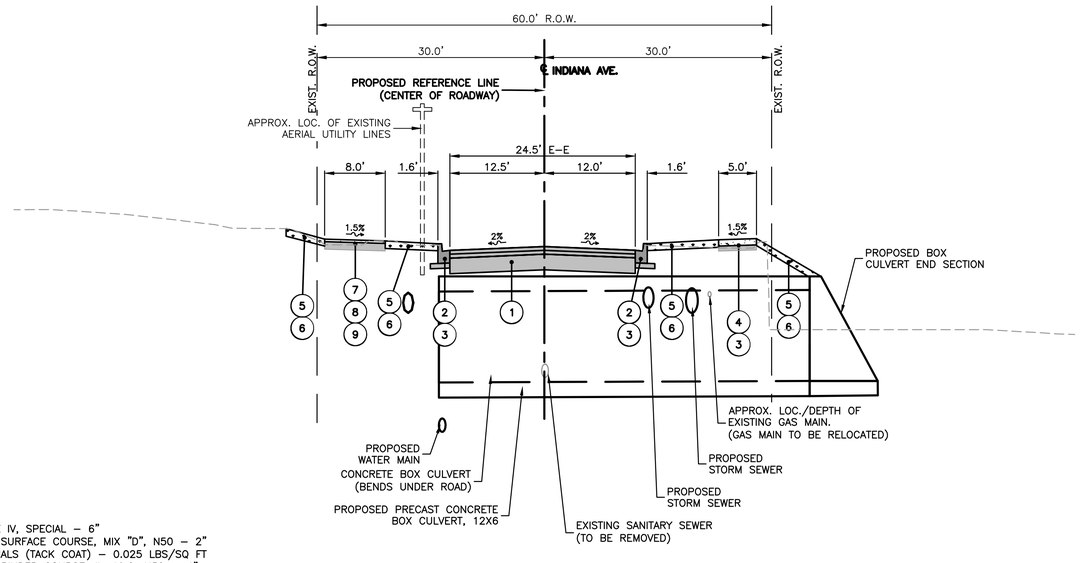
Xrefs: xg1-1-dh01

PAVEMENT CORES					INDIANA AVE.
Core No.	HMA		Base		Remarks
	Type	Depth IN	Type	Depth IN	
C-2	HMA	4.75	AGG	15.25	

FULL WIDTH PATCHING SECTION



EXISTING INDIANA AVE. TYPICAL SECTION

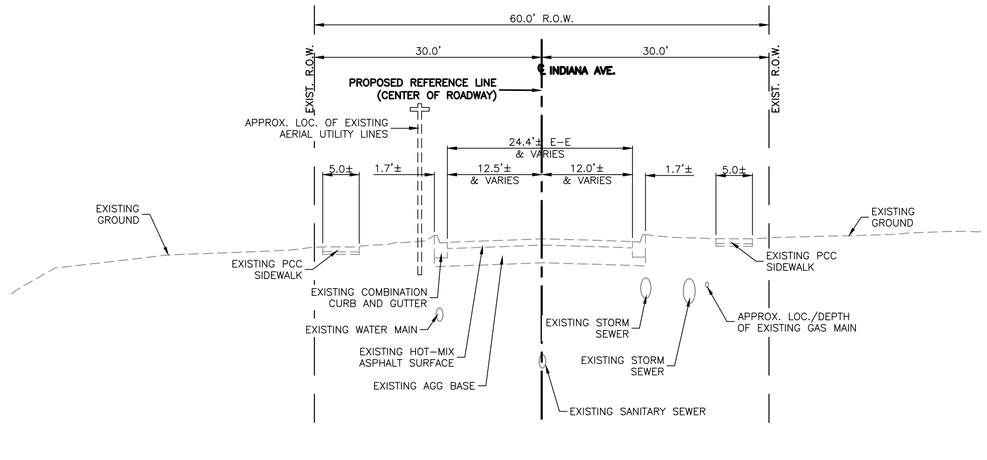


PROPOSED INDIANA AVE. TYPICAL SECTION

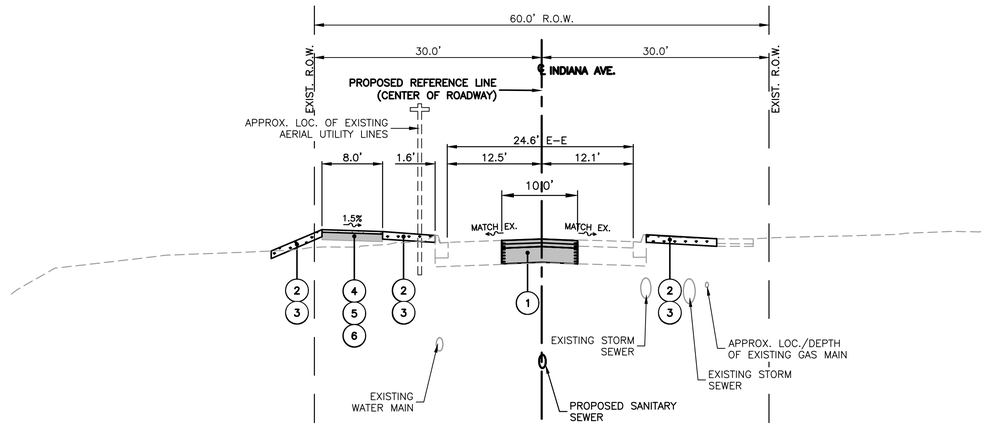
LEGEND

1. CLASS D PATCH, TYPE IV, SPECIAL – 6"
   A. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2"
   B. BITUMINOUS MATERIALS (TACK COAT) – 0.025 LBS/SQ FT
   C. HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 – 4"
   D. BITUMINOUS MATERIALS (PRIME COAT) – 0.25 LBS/SQ FT
   E. AGGREGATE BASE COURSE, TYPE B – 14"
2. COMBINATION CONCRETE CURB AND GUTTER – B-6.12
3. AGGREGATE BASE COURSE, TYPE B – 4" (CA-6 GRADATION)
4. PORTLAND CEMENT CONCRETE SIDEWALK – 5"
5. SEEDING, CLASS 1B
6. TOPSOIL, EXCAVATION AND PLACEMENT – 6"
7. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2"
8. BITUMINOUS MATERIALS (PRIME COAT) – 0.25 LBS/SQ FT
9. AGGREGATE BASE COURSE, TYPE B – 6" (CA-6 GRADATION)

PARTIAL WIDTH PATCHING SECTION



EXISTING INDIANA AVE. TYPICAL SECTION



PROPOSED INDIANA AVE. TYPICAL SECTION

LEGEND

1. CLASS D PATCH, TYPE IV, SPECIAL – 6"
   A. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2"
   B. BITUMINOUS MATERIALS (TACK COAT) – 0.025 LBS/SQ FT
   C. HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 – 4"
   D. BITUMINOUS MATERIALS (PRIME COAT) – 0.25 LBS/SQ FT
   E. AGGREGATE BASE COURSE, TYPE B – 14"
2. SEEDING, CLASS 1B
3. TOPSOIL, EXCAVATION AND PLACEMENT – 6"
4. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2"
5. BITUMINOUS MATERIALS (PRIME COAT) – 0.25 LBS/SQ FT
6. AGGREGATE BASE COURSE, TYPE B – 6" (CA-6 GRADATION)

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ Ndes
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50	4% @ 50 Gyr.
CLASS D PATCHES (HMA BINDER IL-19 mm)	4% @ 50 Gyr.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ TD/IN.

THE "AC TYPE" FOR POLYMERIZED HMA MIXTURES SHALL BE "SBS/SBR PG 78-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISION.

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FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

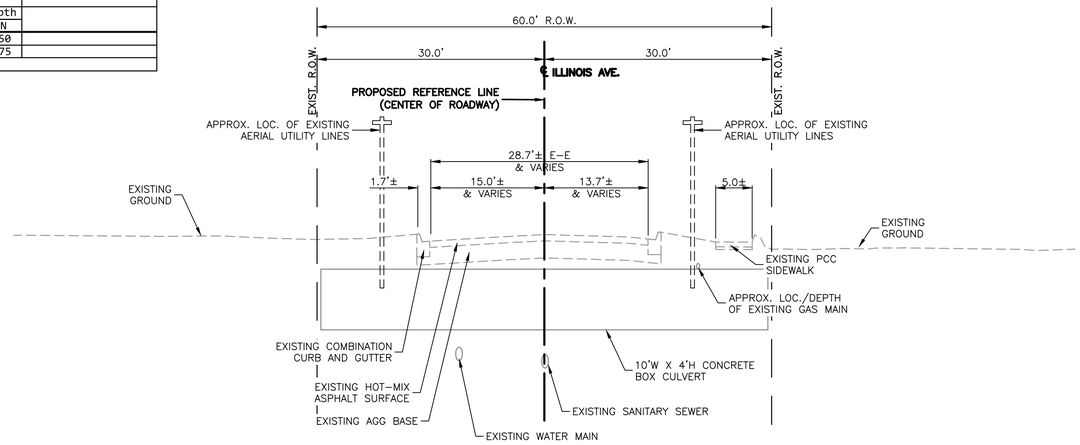
SHEETS
TYPICAL SECTIONS – INDIANA AVE

SHEET NO. 8

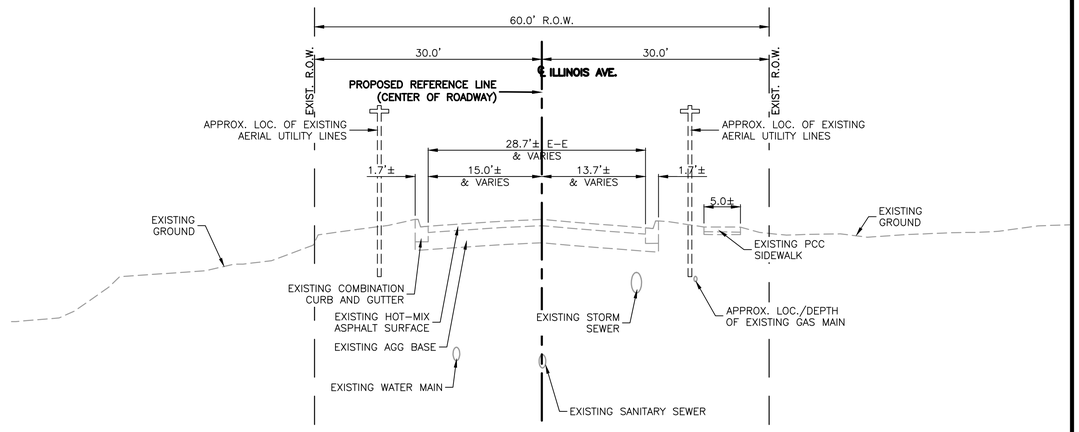
Xrefs: xg1-1-dn01

PAVEMENT CORES					ILLINOIS AVE.
Core No.	HMA		Base		Remarks
	Type	Depth IN	Type	Depth IN	
C-3	HMA	5.00	AGG	13.50	
C-6	HMA	2.75	AGG	4.75	

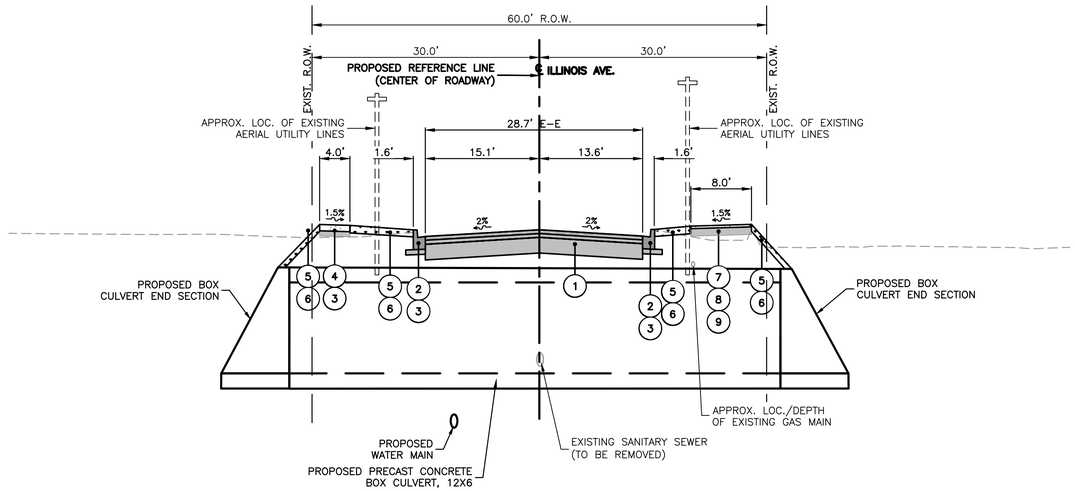
FULL WIDTH PATCHING SECTION



PARTIAL WIDTH PATCHING SECTION



EXISTING ILLINOIS AVE. TYPICAL SECTION

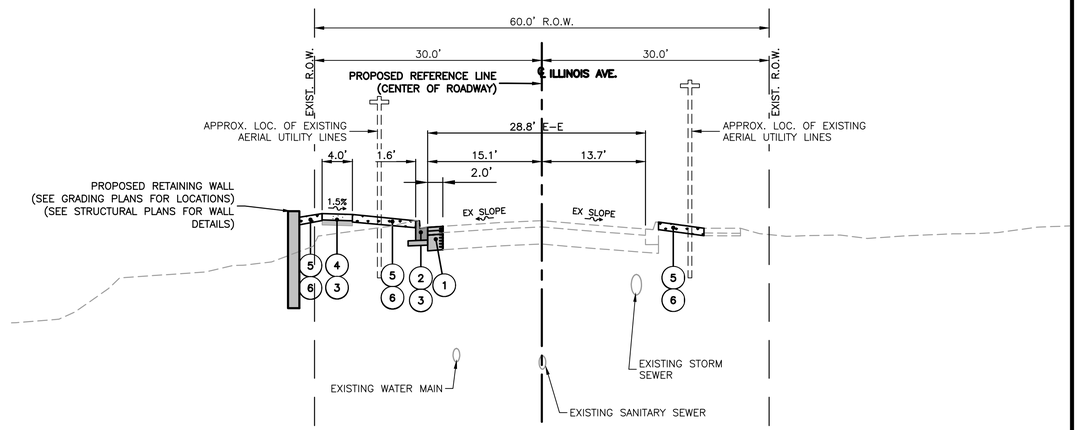


PROPOSED ILLINOIS AVE. TYPICAL SECTION

LEGEND

1. CLASS D PATCH, TYPE IV – 6"
   A. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2"
   B. BITUMINOUS MATERIALS (TACK COAT) – 0.025 LBS/SQ FT
   C. HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 – 4"
   D. BITUMINOUS MATERIALS (PRIME COAT) – 0.25 LBS/SQ FT
   E. AGGREGATE BASE COURSE, TYPE B – 14"
2. COMBINATION CONCRETE CURB AND GUTTER – B-6.12
3. AGGREGATE BASE COURSE, TYPE B – 4" (CA-6 GRADATION)
4. PORTLAND CEMENT CONCRETE SIDEWALK – 5"
5. SEEDING, CLASS 1B
6. TOPSOIL, EXCAVATION AND PLACEMENT – 6"
7. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2"
8. BITUMINOUS MATERIALS (PRIME COAT) – 0.25 LBS/SQ FT
9. AGGREGATE BASE COURSE, TYPE B – 6" (CA-6 GRADATION)

EXISTING ILLINOIS AVE. TYPICAL SECTION



PROPOSED ILLINOIS AVE. TYPICAL SECTION

LEGEND

1. CLASS D PATCH, TYPE IV – 6"
   A. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2"
   B. BITUMINOUS MATERIALS (TACK COAT) – 0.025 LBS/SQ FT
   C. HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 – 4"
   D. BITUMINOUS MATERIALS (PRIME COAT) – 0.25 LBS/SQ FT
   E. AGGREGATE BASE COURSE, TYPE B – 14"
2. COMBINATION CONCRETE CURB AND GUTTER – B-6.12
3. AGGREGATE BASE COURSE, TYPE B – 4" (CA-6 GRADATION)
4. PORTLAND CEMENT CONCRETE SIDEWALK – 5"
5. SEEDING, CLASS 1B
6. TOPSOIL, EXCAVATION AND PLACEMENT – 6"

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ Ndes
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50	4% @ 50 Gyr.
CLASS D PATCHES (HMA BINDER IL-19 mm)	4% @ 50 Gyr.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ TD/IN.

THE "AC TYPE" FOR POLYMERIZED HMA MIXTURES SHALL BE "SBS/SBR PG 78-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISION.

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FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

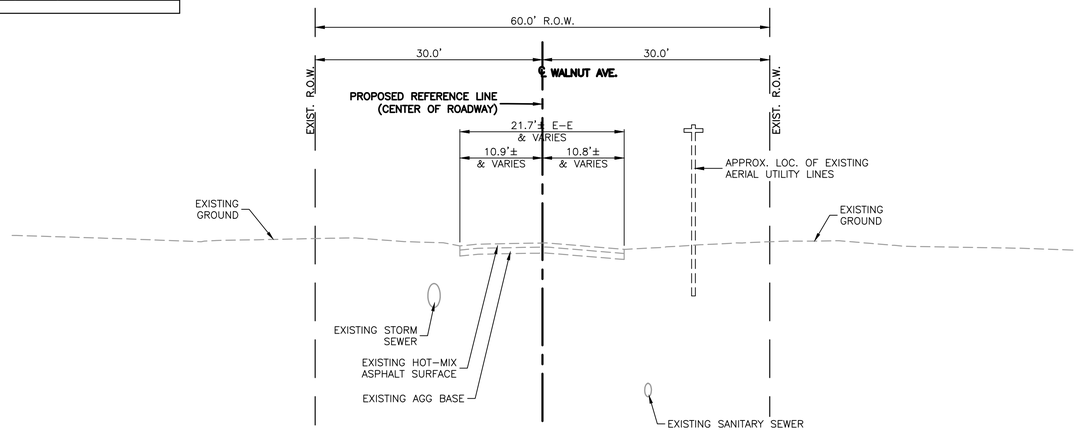
SHEETS
TYPICAL SECTIONS – ILLINOIS AVE

SHEET NO. 9

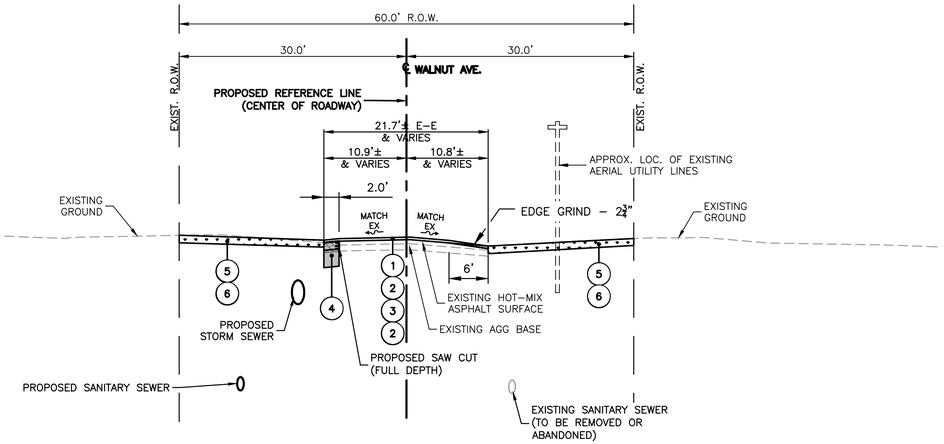
Xrefs: xgt-1-dn01

PAVEMENT CORES					WALNUT AVE.
Core No.	HMA		Base		Remarks
	Type	Depth IN	Type	Depth IN	
C-4	HMA	3.25	AGG	4.75	

PARTIAL WIDTH PATCHING & SURFACE OVERLAY SECTIONS



EXISTING WALNUT AVE. TYPICAL SECTION



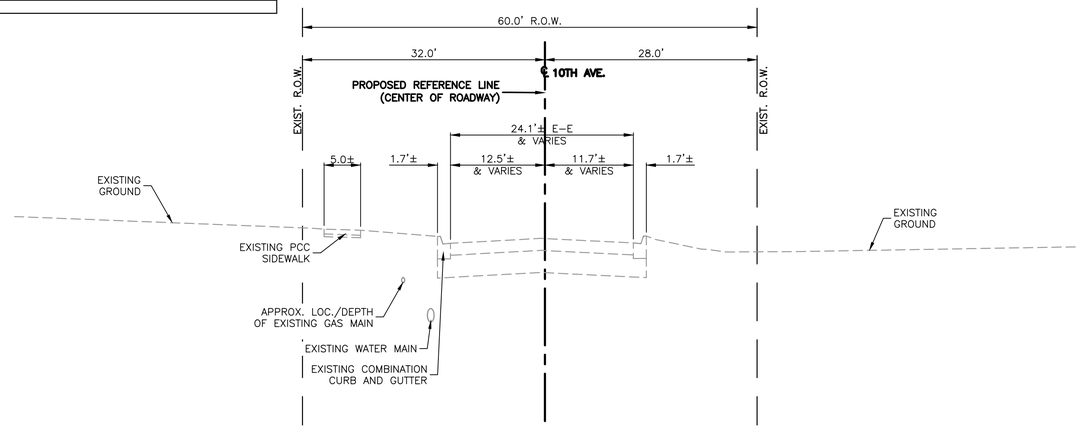
PROPOSED WALNUT AVE. TYPICAL SECTION

LEGEND

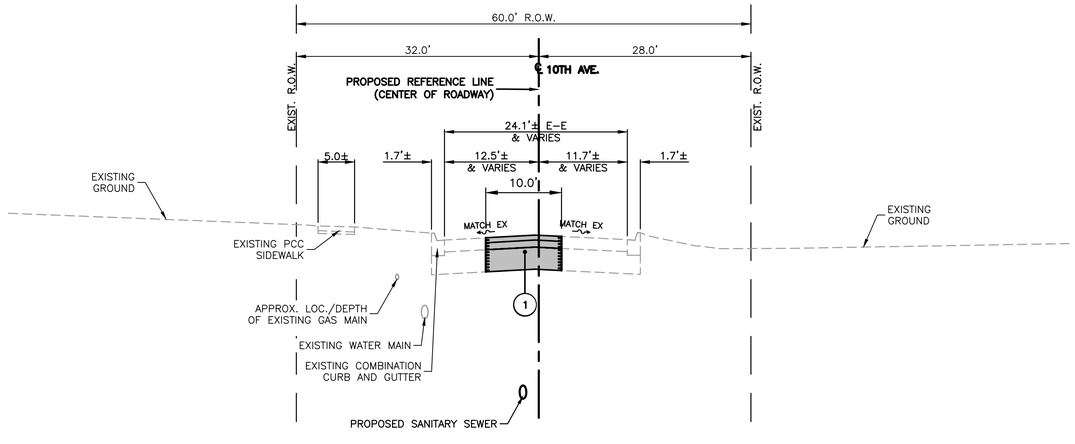
1. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2"
2. BITUMINOUS MATERIALS (TACK COAT) – 0.05 LBS/SQ FT
3. LEVELING BINDER (MACHINE METHOD), N50 – 3/4"
4. CLASS D PATCH, TYPE IV, SPECIAL – 6"
   A. HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 – 6"
   B. BITUMINOUS MATERIALS (PRIME COAT) – 0.25 LBS/SQ FT
   C. AGGREGATE BASE COURSE, TYPE B – 14"
5. SEEDING, CLASS 1B
6. TOPSOIL, EXCAVATION AND PLACEMENT – 6"

PAVEMENT CORES					S. 10th AVE.
Core No.	HMA		Base		Remarks
	Type	Depth IN	Type	Depth IN	
C-5	HMA	9.50	AGG	17.50	

PATCHING SECTIONS



EXISTING 10TH AVE. TYPICAL SECTION



PROPOSED 10TH AVE. TYPICAL SECTION

LEGEND

1. CLASS D PATCH, TYPE IV – 9.5"
   A. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 – 2"
   B. BITUMINOUS MATERIALS (TACK COAT) – 0.025 LBS/SQ FT
   C. HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 – 7.5"
   D. BITUMINOUS MATERIALS (PRIME COAT) – 0.25 LBS/SQ FT
   E. AGGREGATE BASE COURSE, TYPE B – 17.5"

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ Ndes
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50	4% @ 50 Gyr.
LEVELING BINDER (MACHINE METHOD), N50	4% @ 50 Gyr.
CLASS D PATCHES (HMA BINDER IL-19 mm)	4% @ 50 Gyr.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ TD/IN.

THE "AC TYPE" FOR POLYMERIZED HMA MIXTURES SHALL BE "SBS/SBR PG 78-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISION.

FOR USE OF RECYCLED MATERIAL SEE SPECIAL PROVISIONS.

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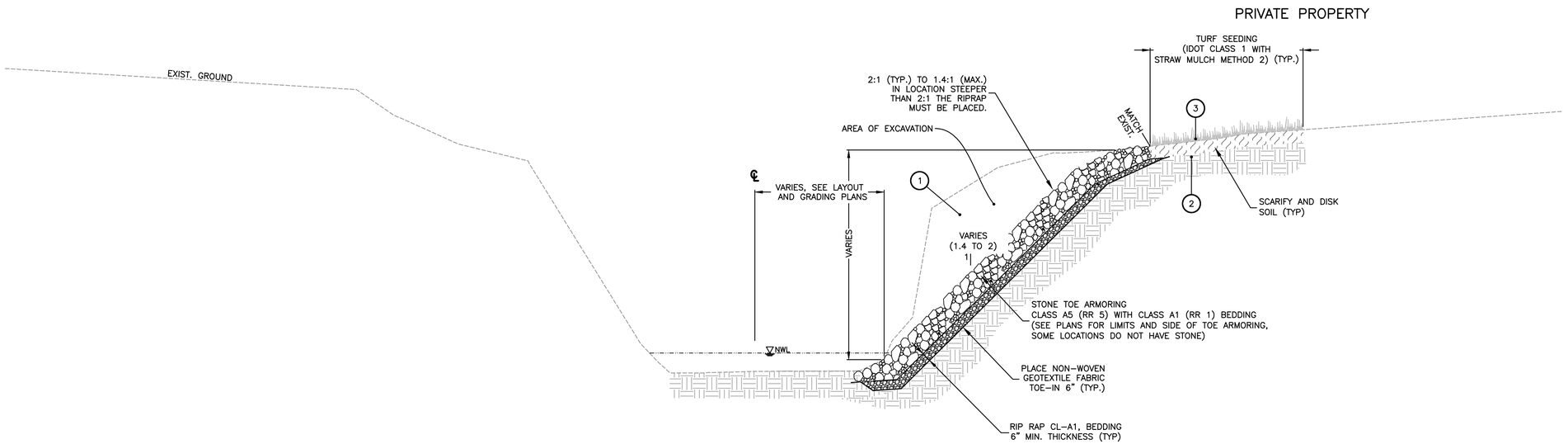
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
TYPICAL SECTIONS – WALNUT & 10TH AVE.

SHEET NO.
10



1 HIGH ROCK STABILIZATION
SCALE: N.T.S.

GENERAL NOTES:

1. EXISTING CHANNEL EXCAVATION MATERIAL TO BE REMOVED & DISPOSED OF AS UNSUITABLE MATERIAL UNLESS APPROVED FOR REUSE BY ENGINEER (EXCLUDING TOPSOIL STRIP & RESPREAD)
2. UNDISTURBED SUBGRADE
3. PROPOSED RESTORATION & PLANTINGS (SEE PLANTING AND RESTORATION PLANS.)

NOTE:
- WHERE EMBANKMENT IS CUT & RE–GRADED TOPSOIL = RESPREAD FROM STOCKPILE CREATED FROM TOPSOIL STRIP IN AREAS OF RE–GRADING.
- WHERE EMBANKMENT IS UNCHANGED (NO GRADING) TOPSOIL = SCARIFY / DISK EXISTING TOPSOIL & PREPARE FOR SEEDING & PLANTINGS.

LEGEND

- TOP SOIL (6" MINIMUM)
- SCARIFY AND DISK SOIL
- NATIVE SOIL
- N.A.G. SC–150 BN EROSION CONTROL BLANKET OR EQUIVALENT
- N.A.G. S75 BN EROSION CONTROL BLANKET OR EQUIVALENT
- PROP. SEEDING (SEE PLANTING SPECIFICATIONS FOR SEED MIXTURES)
- MESIC PRAIRIE MIX SEEDING (SEE PLANTING SPECIFICATIONS FOR SEED MIXTURES)
- WET MESIC PRAIRIE MIX SEEDING (SEE PLANTING SPECIFICATIONS FOR SEED MIXTURES)
- RIPRAP BEDDING CL A1 (RR 1)
- STONE TOE ARMORING CL A4 THROUGH CL A6 (RR 4, RR 5, RR 6)

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CAD FILE: J:\2017\170818\CAD\Dwgs\C\11–13 CREEK TYPICAL SECTIONS.dwg
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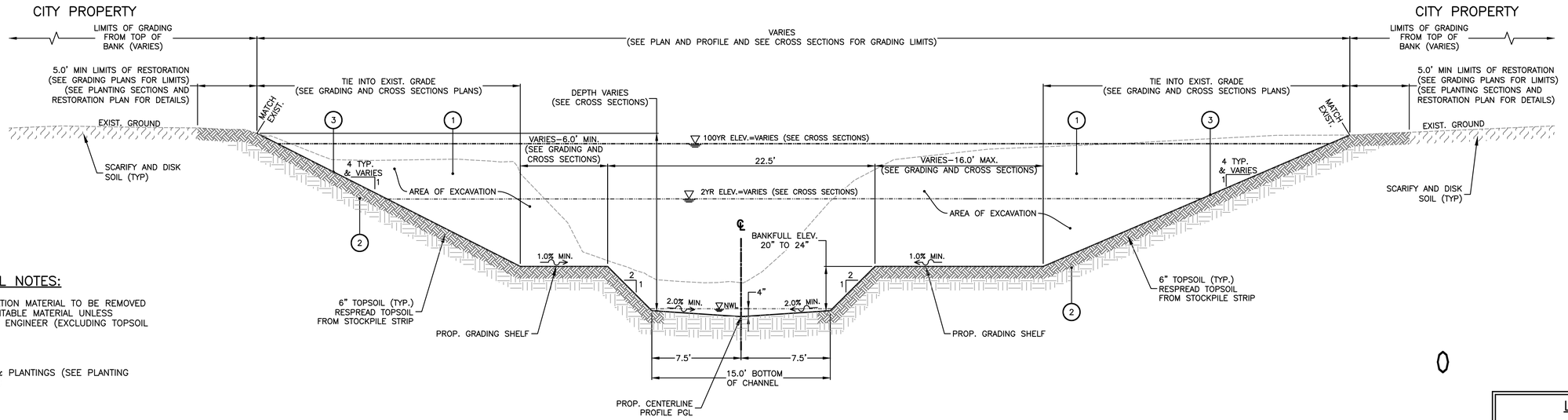
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
7TH AVE. CREEK TYPICAL SECTIONS – WASHINGTON AVE. TO SOUTH AVE.

SHEET NO.
11

Xrefs: xgt-1-dh01



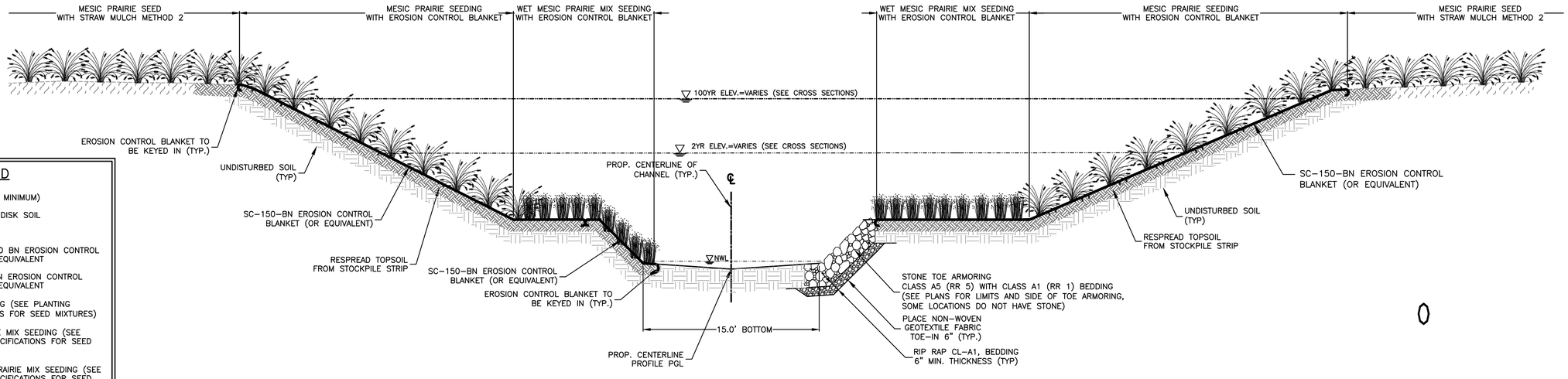
GENERAL NOTES:

1. EXISTING CHANNEL EXCAVATION MATERIAL TO BE REMOVED & DISPOSED OF AS UNSUITABLE MATERIAL UNLESS APPROVED FOR REUSE BY ENGINEER (EXCLUDING TOPSOIL STRIP & RESPREAD)
2. UNDISTURBED SUBGRADE
3. PROPOSED RESTORATION & PLANTINGS (SEE PLANTING AND RESTORATION PLANS.)

NOTE:
- WHERE EMBANKMENT IS CUT & RE-GRADED TOPSOIL = RESPREAD FROM STOCKPILE CREATED FROM TOPSOIL STRIP IN AREAS OF RE-GRADING.
- WHERE EMBANKMENT IS UNCHANGED (NO GRADING) TOPSOIL = SCARIFY / DISK EXISTING TOPSOIL & PREPARE FOR SEEDING & PLANTINGS.

1 TWO STAGE CHANNEL TYPICAL SECTION
SCALE: N.T.S.

LEGEND
- TOP SOIL
- SCARIFY AND DISK SOIL
- NATIVE SOIL



LEGEND
- TOP SOIL (6" MINIMUM)
- SCARIFY AND DISK SOIL
- NATIVE SOIL
- N.A.G. SC-150 BN EROSION CONTROL BLANKET OR EQUIVALENT
- N.A.G. S75 BN EROSION CONTROL BLANKET OR EQUIVALENT
- PROP. SEEDING (SEE PLANTING SPECIFICATIONS FOR SEED MIXTURES)
- MESIC PRAIRIE MIX SEEDING (SEE PLANTING SPECIFICATIONS FOR SEED MIXTURES)
- WET MESIC PRAIRIE MIX SEEDING (SEE PLANTING SPECIFICATIONS FOR SEED MIXTURES)
- RIPRAP BEDDING CL A1 (RR 1)
- STONE TOE ARMORING CL A4 THROUGH CL A6 (RR 4, RR 5, RR 6)

2 TWO STAGE CHANNEL PLANTING/RESTORATION TYPICAL SECTION
SCALE: N.T.S.

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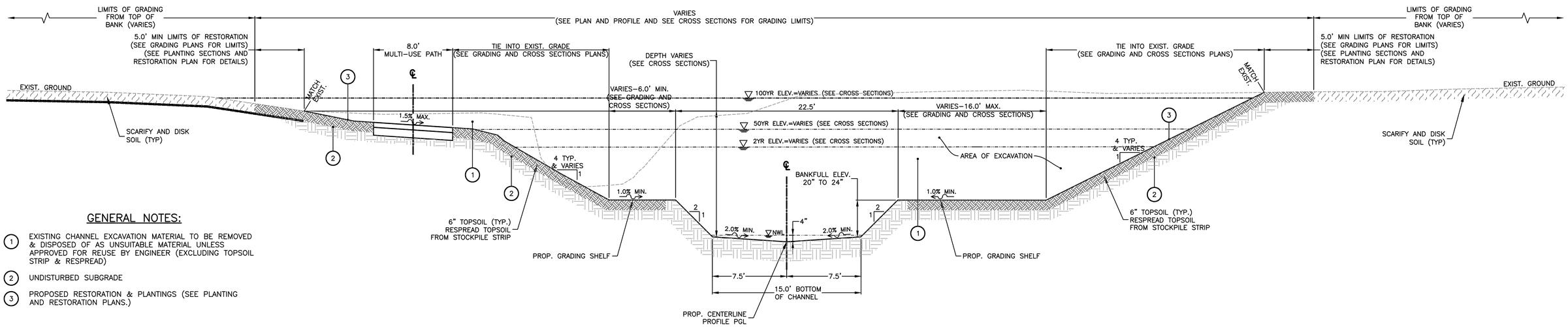
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS - PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
7TH AVE. CREEK TYPICAL SECTIONS - SOUTH AVE. TO INDIANA AVE.

SHEET NO.
12

Xrefs: xgl-1-dh01



GENERAL NOTES:

1. EXISTING CHANNEL EXCAVATION MATERIAL TO BE REMOVED & DISPOSED OF AS UNSUITABLE MATERIAL UNLESS APPROVED FOR REUSE BY ENGINEER (EXCLUDING TOPSOIL STRIP & RESPREAD)
2. UNDISTURBED SUBGRADE
3. PROPOSED RESTORATION & PLANTINGS (SEE PLANTING AND RESTORATION PLANS.)

NOTE:

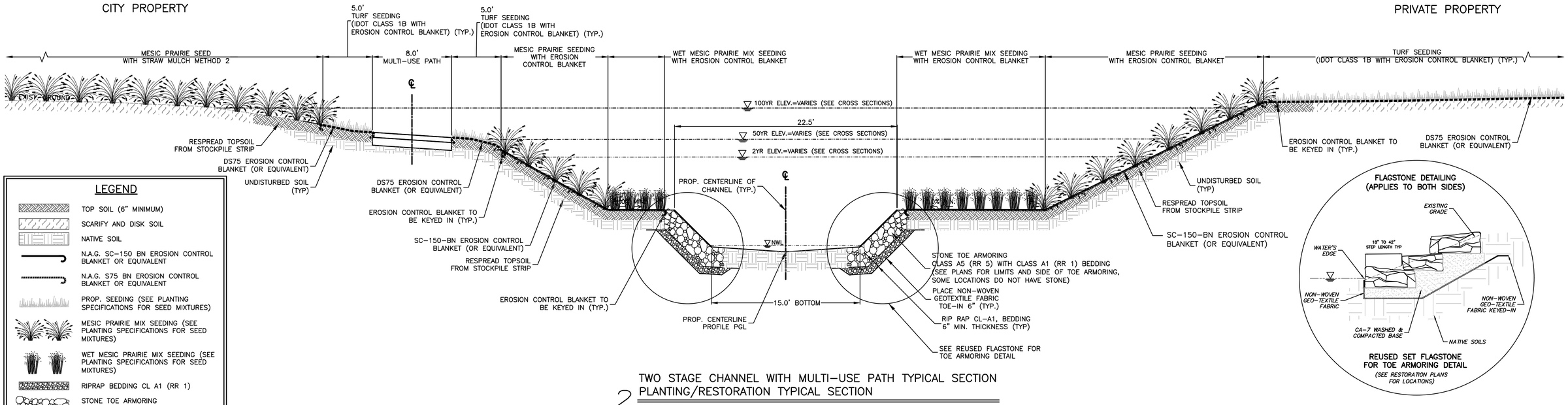
- WHERE EMBANKMENT IS CUT & RE-GRADED TOPSOIL = RESPREAD FROM STOCKPILE CREATED FROM TOPSOIL STRIP IN AREAS OF RE-GRADING.
- WHERE EMBANKMENT IS UNCHANGED (NO GRADING) TOPSOIL = SCARIFY / DISK EXISTING TOPSOIL & PREPARE FOR SEEDING & PLANTINGS.

LEGEND

- TOP SOIL
- SCARIFY AND DISK SOIL
- NATIVE SOIL

1 TWO STAGE CHANNEL WITH MULTI-USE PATH TYPICAL SECTION

SCALE: N.T.S.



LEGEND

- TOP SOIL (6" MINIMUM)
- SCARIFY AND DISK SOIL
- NATIVE SOIL
- N.A.G. SC-150 BN EROSION CONTROL BLANKET OR EQUIVALENT
- N.A.G. S75 BN EROSION CONTROL BLANKET OR EQUIVALENT
- PROP. SEEDING (SEE PLANTING SPECIFICATIONS FOR SEED MIXTURES)
- MESIC PRAIRIE MIX SEEDING (SEE PLANTING SPECIFICATIONS FOR SEED MIXTURES)
- WET MESIC PRAIRIE MIX SEEDING (SEE PLANTING SPECIFICATIONS FOR SEED MIXTURES)
- RIPRAP BEDDING CL A1 (RR 1)
- STONE TOE ARMORING CL A4 THROUGH CL A6 (RR 4, RR 5, RR 6)

2 TWO STAGE CHANNEL WITH MULTI-USE PATH TYPICAL SECTION PLANTING/RESTORATION TYPICAL SECTION

SCALE: N.T.S.

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APPROVED:	DVM	JOB NUMBER:	170818
CAD DATE:	10/28/2020 9:42:54 AM		
CAD FILE:	J:\2017\170818\CAD\Dwgs\C\11-13 CREEK TYPICAL SECTIONS.dwg		

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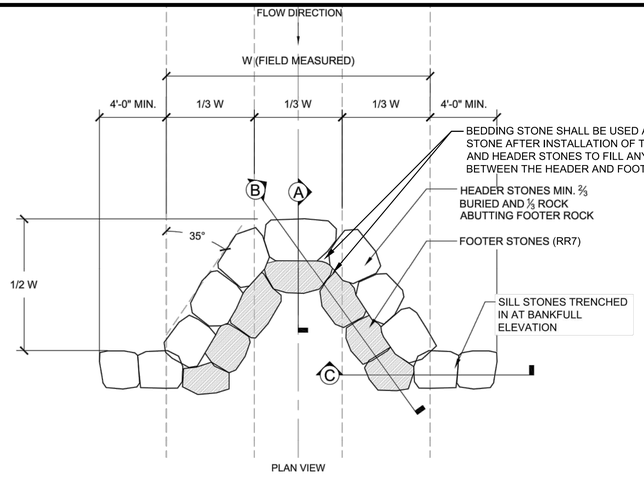
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS - PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
7TH AVE. CREEK TYPICAL SECTIONS - INDIANA AVE. TO 10TH AVE.

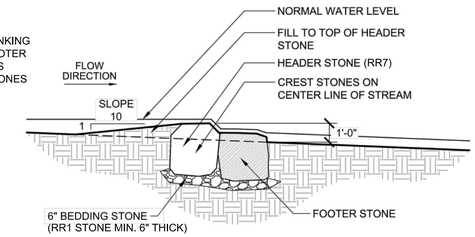
SHEET NO. 13

Xrefs: xgl-1-dh01



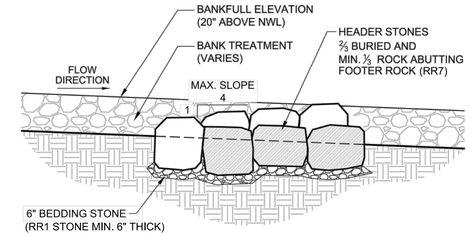
PLAN VIEW

NOTES:
1. STONE SHALL BE ANGULAR IN SHAPE AND NEITHER BREADTH NOR THICKNESS OF A SINGLE STONE SHOULD BE LESS THAN ONE-THIRD ITS LENGTH. STONE SHALL BE BLOCKY RATHER THAN ELONGATED. STONE SHALL HAVE SHARP, ANGULAR, CLEAN EDGES AT THE INTERSECTIONS OF RELATIVELY FLAT SURFACES AND SHOULD BE NESTED TOGETHER. ROUNDED STONES OR BOULDERS WILL NOT BE ACCEPTED.
2. HEADER, FOOTER AND SILL STONE SIZES SHALL BE 24-36". (RR7)
3. STONE HAS BEEN SIZED AS HAVING A UNIT WEIGHT OF 165 PCF. NO STONE SHALL BE LESS THAN 150 PCF AND ITS SIZING SHOULD BE INCREASED RELATIVE TO ITS UNIT WEIGHT.
4. FOOTERS, HEADERS AND SILLS SHALL BE ⅔ BURIED AND HEADERS SHALL BE UPSTREAM AND ABUTTING THE FOOTERS BY MIN. ⅓ ROCK DEPTH. FOOTERS, HEADERS AND SILLS SHALL BE TIED INTO THE BANK SIDE SLOPES WITH MINIMAL DISRUPTION OF SIDE SLOPES.



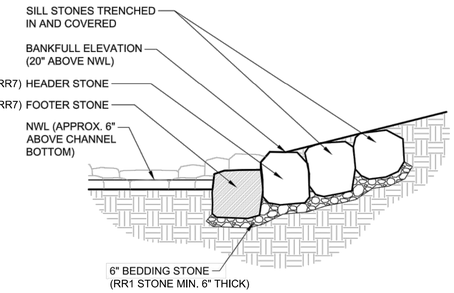
A CROSS VANE SECTION - CREST STONE

SCALE: 1/4" = 1'-0"



B CROSS VANE SECTION - VANE ARM

SCALE: 1/4" = 1'-0"

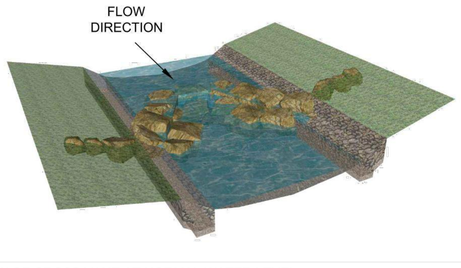


C CROSS VANE SECTION - SILL STONES

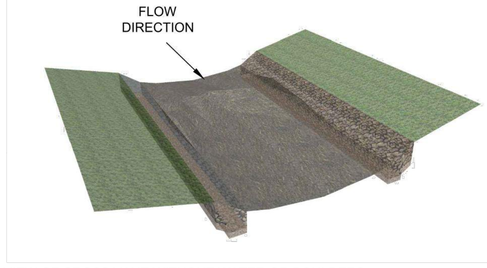
SCALE: 1/4" = 1'-0"

CROSS VANE

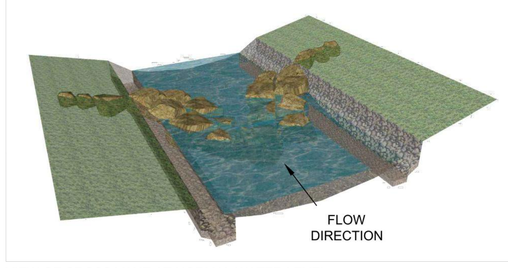
SCALE: 1/4" = 1'-0"



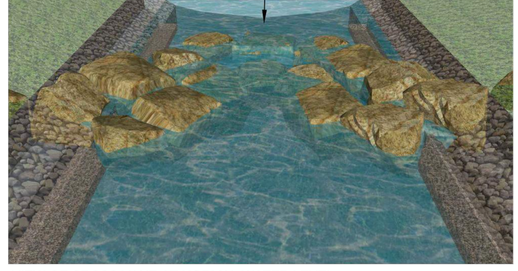
VIEW OF CROSS VANE AT NORMAL WATER LEVEL



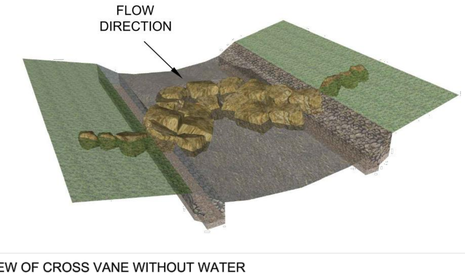
VIEW OF CROSS VANE WITHOUT WATER OR BOULDERS



VIEW OF CROSS VANE AT NORMAL WATER LEVEL



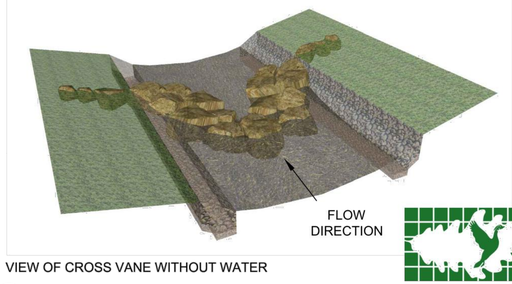
VIEW OF CROSS VANE AT NORMAL WATER LEVEL



VIEW OF CROSS VANE WITHOUT WATER

CROSS VANE AXONIMETRIC VIEW 1

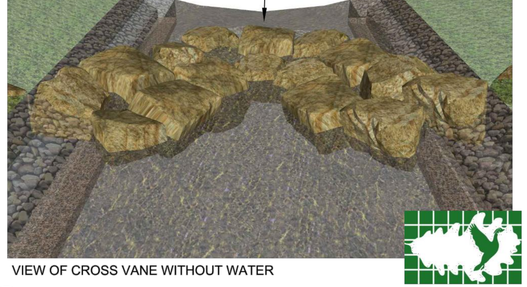
N.T.S.



VIEW OF CROSS VANE WITHOUT WATER

CROSS VANE AXONIMETRIC VIEW 2

N.T.S.



VIEW OF CROSS VANE WITHOUT WATER

CROSS VANE AXONIMETRIC VIEW 3

N.T.S.

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Xrefs: xgt-1-dh01

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CAD FILE:	J:\2017\170818\CAD\Dwgs\C\14 CROSS VANE DETAILS.dwg		

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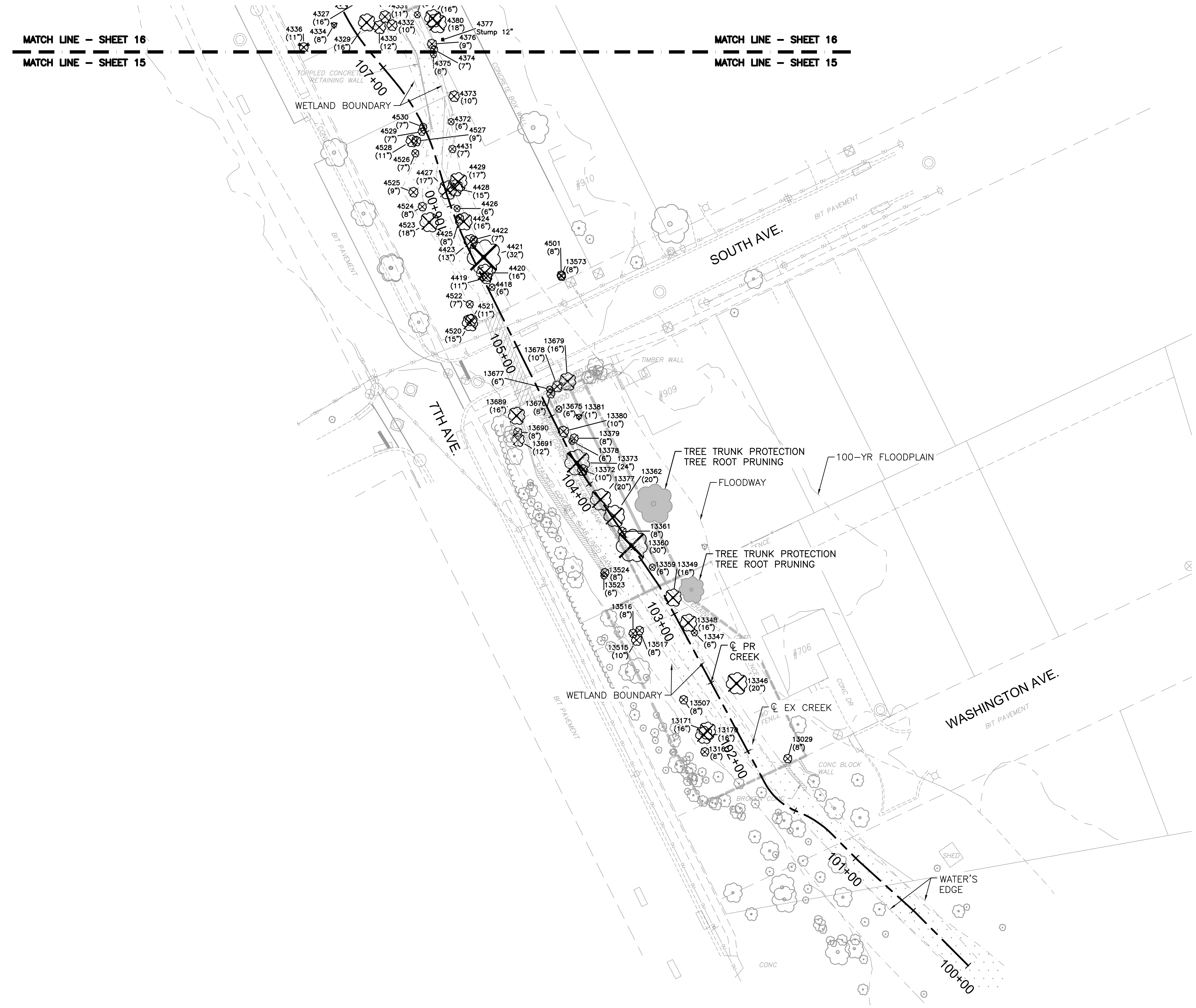
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

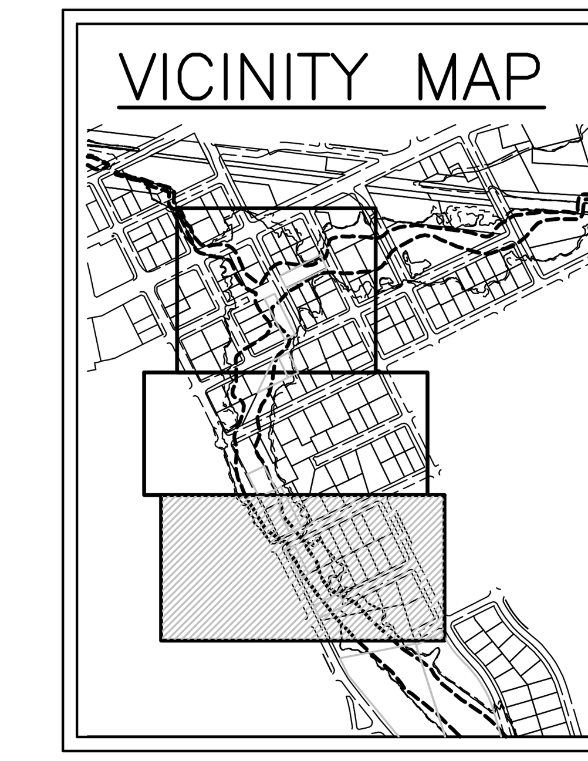
SHEETS
CROSS VANE DETAILS

SHEET NO.
14



1 **PLAN**
SCALE: 1" = 40'

NORTH
0 10 20 40



LEGEND:

INDICATES TREE PROTECTION

INDICATES TREE OR SHRUB REMOVAL

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CAD FILE:	J:\2017\170818\CAD\Dwgs\D\15–18 TREE REMOVAL & TREE PROTECTION PLANS.dwg		

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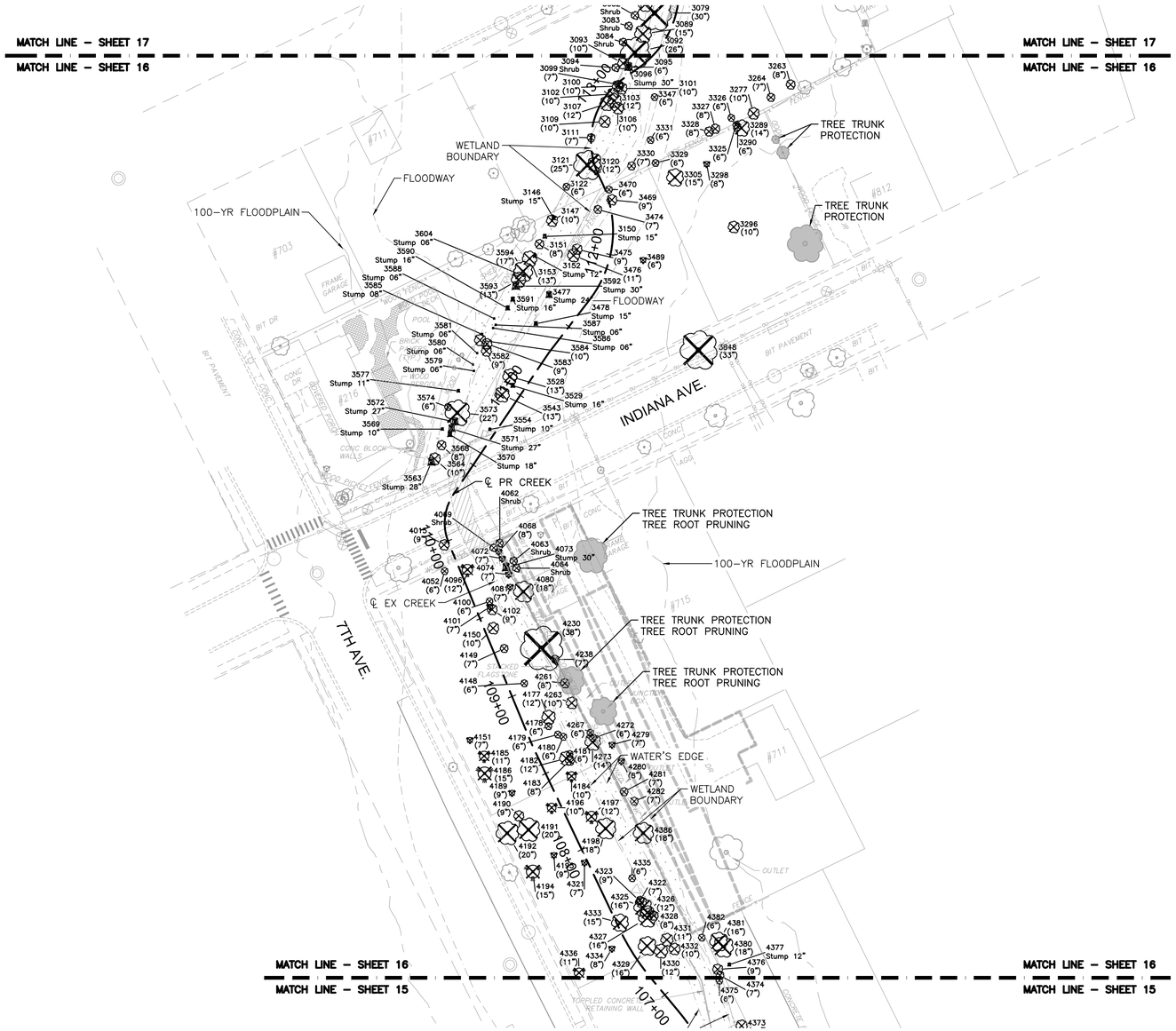
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

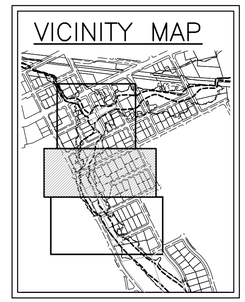
SHEETS
TREE REMOVAL & TREE PROTECTION PLAN – SOUTH AREA

SHEET NO.
15

Xrefs: xgt–1–dh01; 170818–xv–survey; xc–1–algn; 170818–xc–removals; xc–1–row



VICINITY MAP



LEGEND:

INDICATES TREE PROTECTION

INDICATES TREE OR SHRUB REMOVAL

FOR BIDDING ONLY

DRAWN BY: CTK	JOB DATE: OCTOBER 28, 2020	BAR IS ONE INCH ON OFFICIAL DRAWINGS.	
APPROVED: DVM	JOB NUMBER: 170818	0 1"	
CAD DATE: 10/23/2020 10:25:26 AM		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD FILE: J:\2017\170818\CAD\Dwgs\D\15-18 TREE REMOVAL & TREE PROTECTION PLANS.dwg			

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FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

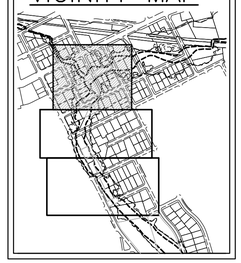
SHEETS
TREE REMOVAL & TREE PROTECTION PLAN – CENTRAL AREA

SHEET NO.
16

1 PLAN
SCALE: 1" = 40'

NORTH
0 10 20 40

VICINITY MAP



LEGEND:

INDICATES TREE PROTECTION

INDICATES TREE OR SHRUB REMOVAL

FOR BIDDING ONLY

DRAWN BY:	CTK	JOB DATE:	OCTOBER 28, 2020
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FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
TREE REMOVAL & TREE PROTECTION PLAN – NORTH AREA

SHEET NO.
17

Xrefs: xg1-1-dh01; 170818-xv-survey; xc-1-align; 170818-xc-removals; xc-1-row

TREE REMOVE SURVEY

TAG#	DBH (IN)	NORTHING	EASTING	NOTES
1043	(24")	1911341.56	992096.48	
1044	(6")	1911334.92	992066.38	
1045	(8")	1911323.24	992067.13	
1046	(30")	1911382.27	992042.49	
1067	(27")	1911455.58	992018.08	
1068	(16")	1911467.56	992044.00	
1069	(9")	1911471.60	991995.08	
1099	(9")	1911560.07	991998.62	
1100	(8")	1911544.32	992001.49	
1101	(6")	1911547.72	991985.49	
1102	(20")	1911585.70	992001.24	
1128	(10")	1911599.72	991929.20	
1281	(15")	1911572.04	992107.41	
1311	(26")	1911499.40	992088.91	
1526	(9")	1911327.32	991999.41	
1527	(9")	1911317.53	991976.90	
1528	Stump 15"	1911315.84	991980.38	
1529	(13")	1911312.47	991972.56	
1530	(10")	1911310.55	991961.01	
1531	(24")	1911334.31	991965.82	
1547	(7")	1911264.38	991992.65	
1548	(18")	1911256.86	991979.04	
1549	(6")	1911262.17	991977.23	
1550	(7")	1911280.05	991994.18	
1551	(8")	1911281.90	991998.64	
1630	(10")	1911204.65	991971.61	
1921	(8")	1911653.65	992245.06	
2045	(10")	1911638.39	992251.17	
2056	(7")	1911616.98	992251.82	
2057	(7")	1911615.99	992244.00	
2060	(14")	1911613.30	992243.73	
2063	(15")	1911614.15	992233.04	
2064	(11")	1911611.60	992225.42	
2066	(7")	1911611.76	992220.10	
2069	(24")	1911615.70	992212.91	
2070	(8")	1911627.40	992227.44	
2071	(7")	1911631.64	992232.23	
2072	(30")	1911642.36	992231.42	
2103	(15")	1911612.11	992203.34	
2104	(6")	1911611.83	992201.96	
2107	(14")	1911603.95	992180.91	
2108	(8")	1911604.15	992191.25	
2112	(6")	1911621.68	992180.95	
2114	(27")	1911634.51	992193.30	
2179	(11")	1911599.42	992158.19	
2279	(18")	1911588.65	992125.92	
2369	(16")	1911500.38	991975.33	
2383	(10")	1911472.36	991997.53	
2390	(30")	1911504.95	991928.23	
2419	(19")	1911574.37	991895.77	
2431	(12")	1911593.69	991887.78	
2529	(11")	1911535.84	991905.99	
2556	(6")	1911490.33	991929.70	
2572	(10")	1911464.06	991976.13	
2807	(24")	1911486.59	991855.05	
2958	(6")	1911398.87	992021.33	
2962	(20")	1911420.30	992012.27	

TREE REMOVE SURVEY

TAG#	DBH (IN)	NORTHING	EASTING	NOTES
3563	Stump 28"	1910920.71	991873.22	
3564	(10")	1910922.77	991875.16	
3568	(8")	1910930.84	991879.22	
3569	Stump 10"	1910940.39	991879.73	
3570	Stump 18"	1910937.15	991884.21	
3571	Stump 27"	1910940.69	991885.28	
3572	Stump 27"	1910944.71	991887.25	
3573	(22")	1910950.09	991888.62	
3574	(6")	1910953.52	991883.11	
3577	Stump 11"	1910963.12	991889.28	
3579	Stump 06"	1910974.95	991898.50	
3580	Stump 06"	1910978.82	991897.85	
3581	Stump 06"	1910985.54	991900.40	
3582	(9")	1910986.79	991905.90	
3583	(9")	1910991.10	991906.22	
3584	(10")	1910993.28	991902.12	
3585	Stump 08"	1910996.72	991903.30	
3586	Stump 06"	1911000.45	991909.88	
3587	Stump 06"	1911002.36	991911.41	
3588	Stump 06"	1911006.14	991910.51	
3590	Stump 16"	1911012.27	991918.52	
3591	Stump 16"	1911017.51	991921.58	
3592	Stump 30"	1911025.37	991923.38	
3593	(13")	1911029.20	991925.01	
3594	(17")	1911034.16	991927.74	
3604	Stump 06"	1911031.42	991927.97	
3848	(33")	1910987.31	992031.94	
4015	(9")	1910871.58	991880.78	
4052	(6")	1910855.99	991881.08	
4068	(8")	1910867.53	991913.25	
4072	(7")	1910863.39	991915.33	
4073	Stump 30"	1910858.06	991917.62	
4074	(7")	1910853.95	991919.14	
4080	(18")	1910843.75	991927.93	
4081	(7")	1910846.60	991920.09	
4096	(12")	1910856.87	991894.65	
4100	(6")	1910838.03	991907.77	
4101	(7")	1910834.80	991908.01	
4102	(9")	1910833.16	991909.29	
4148	(6")	1910789.28	991928.40	
4149	(7")	1910809.99	991916.46	
4150	(10")	1910822.05	991909.93	
4151	(7")	1910755.60	991896.15	
4177	(12")	1910769.15	991942.80	
4178	(6")	1910763.86	991942.79	
4179	(6")	1910758.85	991948.34	
4180	(6")	1910757.49	991951.67	
4181	(6")	1910747.25	991955.41	
4182	(12")	1910744.65	991953.36	
4183	(8")	1910743.38	991955.49	
4184	(10")	1910734.15	991956.53	
4185	(11")	1910746.12	991904.61	
4186	(15")	1910735.71	991904.86	
4189	(9")	1910724.16	991921.16	
4190	(9")	1910710.45	991925.17	
4191	(20")	1910702.25	991930.94	
4192	(20")	1910700.21	991918.28	

TREE REMOVE SURVEY

TAG#	DBH (IN)	NORTHING	EASTING	NOTES
3038	(9")	1911358.15	992018.15	
3041	(6")	1911379.59	992010.16	
3073	(6")	1911204.49	992002.95	
3076	(6")	1911197.35	992001.28	
3078	(12")	1911192.73	992000.24	
3079	(30")	1911187.76	992005.87	
3089	(15")	1911175.32	991998.96	
3092	(26")	1911164.18	991994.12	
3093	(10")	1911157.84	991987.20	
3095	(6")	1911155.56	991990.46	
3096	Stump 30"	1911155.64	991990.34	
3099	(7")	1911145.22	991984.47	
3100	(10")	1911144.18	991984.05	
3101	(10")	1911142.92	991986.13	
3102	(10")	1911139.60	991981.05	
3103	(12")	1911135.61	991982.02	
3106	(10")	1911131.16	991984.01	
3107	(12")	1911133.84	991977.30	
3109	(10")	1911123.18	991976.22	
3111	(7")	1911113.60	991968.13	
3120	(12")	1911097.80	991969.89	
3121	(25")	1911097.29	991965.99	
3122	(6")	1911084.51	991953.44	
3146	Stump 15"	1911065.87	991945.84	
3147	(10")	1911064.26	991944.93	
3150	Stump 15"	1911054.93	991940.60	
3151	(8")	1911050.34	991937.44	
3152	Stump 12"	1911043.27	991934.66	
3153	(13")	1911041.71	991931.59	
3263	(8")	1911145.21	992086.75	
3264	(7")	1911137.57	992075.00	
3277	(10")	1911128.05	992064.67	
3289	(14")	1911119.37	992057.51	
3290	(6")	1911120.11	992055.28	
3296	(10")	1911060.52	992052.91	
3298	(8")	1911097.97	992036.89	
3305	(15")	1911089.96	992017.98	
3325	(6")	1911121.22	992054.36	
3326	(6")	1911125.41	992051.43	
3327	(8")	1911118.94	992041.97	
3328	(8")	1911117.29	992038.22	
3329	(6")	1911098.60	992006.41	
3330	(7")	1911096.83	991992.15	
3331	(6")	1911112.24	992003.46	
3347	(6")	1911137.74	992005.81	
3469	(9")	1911076.67	991980.47	
3470	(6")	1911082.78	991978.79	
3474	(7")	1911070.94	991972.11	
3475	(9")	1911047.31	991959.74	
3476	(11")	1911043.68	991957.72	
3477	Stump 24"	1911020.14	991943.11	
3478	Stump 15"	1911003.00	991935.28	
3489	(6")	1911040.92	991999.13	
3528	(13")	1910971.69	991919.95	
3529	Stump 16"	1910966.24	991921.62	
3543	(13")	1910960.94	991915.19	
3554	Stump 10"	1910940.20	991907.93	

TREE REMOVE SURVEY

TAG#	DBH (IN)	NORTHING	EASTING	NOTES
4194	(15")	1910677.33	991933.56	
4195	(9")	1910687.14	991946.08	
4196	(10")	1910715.44	991944.74	
4197	(12")	1910710.12	991968.39	
4198	(18")	1910702.96	991976.78	
4230	(38")	1910809.94	991938.69	
4238	(7")	1910803.55	991946.76	
4261	(8")	1910789.31	991952.58	
4263	(10")	1910777.60	991956.64	
4267	(6")	1910759.85	991967.70	
4272	(6")	1910756.50	991969.03	
4273	(14")	1910754.31	991969.05	
4279	(7")	1910752.77	991980.63	
4280	(8")	1910742.94	991986.13	
4281	(7")	1910724.84	991987.72	
4282	(7")	1910719.20	991993.81	
4321	(7")	1910682.67	991964.23	
4322	(7")	1910660.29	991997.33	
4323	(9")	1910659.00	991997.98	
4325	(16")	1910656.16	991998.79	
4326	(12")	1910652.88	992001.48	
4327	(16")	1910649.88	992001.61	
4328	(8")	1910651.13	992005.40	
4329	(16")	1910633.11	992001.40	
4330	(12")	1910630.10	992009.58	
4331	(11")	1910636.82	992013.17	
4332	(10")	1910631.36	992017.69	
4333	(15")	1910646.95	991985.24	
4334	(8")	1910631.55	991980.52	
4335	(6")	1910673.43	991992.52	
4336	(11")	1910617.22	991961.01	
4372	(6")	1910569.33	992055.62	
4373	(10")	1910585.72	992057.61	
4374	(7")	1910615.68	992044.76	
4375	(6")	1910612.61	992044.41	
4376	(9")	1910619.26	992043.35	
4377	Stump 12"	1910622.00	992050.25	
4380	(18")	1910632.65	992046.59	
4381	(16")	1910635.80	992043.91	
4382	(6")	1910638.10	992033.92	
4386	(18")	1910700.27	991999.18	
4418	(6")	1910463.02	992081.98	
4419	(11")	1910469.00	992078.17	
4420	(16")	1910472.18	992077.22	
4421	(32")	1910482.19	992076.58	
4422	(7")	1910493.50	992070.25	
4423	(13")	1910492.28	992068.28	
4424	(16")	1910505.23	992063.80	
4425	(8")	1910506.88	992061.16	
4426	(6")	1910513.54	992059.47	
4427	(17")	1910525.41	992053.33	
4428	(15")	1910526.80	992058.06	
4429	(17")	1910530.68	992060.16	
4431	(7")	1910551.79	992056.48	
4501	(8")	1910470.69	992126.42	
4520	(15")	1910440.04	992067.76	
4521	(11")	1910441.81	992068.40	

TREE REMOVE SURVEY

TAG#	DBH (IN)	NORTHING	EASTING	NOTES
4522	(7")	1910452.02	992067.61	
4523	(18")	1910504.66	992041.55	
4524	(8")	1910514.74	992037.17	
4525	(9")	1910524.01	992031.46	
4526	(7")	1910549.05	992032.65	
4527	(9")	1910556.87	992033.18	
4528	(11")	1910556.98	992030.33	
4529	(7")	1910562.93	992036.77	
4530	(7")	1910565.92	992037.77	
13029	(8")	1910159.92	992271.95	
13163	(8")	1910164.28	992218.67	
13170	(16")	1910175.12	992218.04	
13171	(16")	1910177.83	992220.22	
13346	(20")	1910208.24	992239.07	
13347	(6")	1910240.84	992212.03	
13348	(16")	1910247.25	992208.11	
13349	(16")	1910263.41	992198.26	
13359	(6")	1910283.01	992184.94	
13360	(30")	1910296.86	992171.62	
13361	(8")	1910305.97	992165.55	
13362	(20")	1910315.82	992160.43	
13372	(10")	1910345.51	992140.20	
13373	(24")	1910350.19	992136.57	
13377	(20")	1910326.42	992151.70	
13378	(6")	1910364.01	992133.30	
13379	(8")	1910365.89	992134.69	
13380	(10")	1910370.20	992127.85	
13381	(1")	1910379.78	992137.83	
13507	(8")	1910197.75	992205.03	
13515	(10")	1910236.14	992174.83	
13516	(8")	1910240.40	992172.60	
13517	(8")	1910242.31	992176.71	
13523	(6")	1910277.48	992153.85	
13524	(8")	1910279.47	992154.42	
13573	(8")	1910469.96	992126.63	
13675	(6")	1910384.63	992124.93	
13676	(8")	1910394.50	992119.66	
13677	(6")	1910397.42	992118.98	
13678	(10")	1910399.17	992123.87	
13679	(16")	1910402.36	992130.44	
13689	(16")	1910380.27	992097.72	
13690	(8")	1910369.83	992098.45	
13691	(12")	1910364.80	992098.68	

TREE TRUNK PROTECTION

TAG#	DBH (IN)	NORTHING	EASTING	NOTES
2137	(10")	1911645.80	992141.36	
2192	(18")	1911536.46	992173.34	
2651	(28")	1911473.57	991810.56	
3280	(7")	1911112.57	992077.76	
3282	(11")	1911104.78	992082.15	
3460	(32")	1911050.63	992095.34	
3934	(30")	1910865.19	991967.67	
4262	(24")	1910790.86	991955.89	
4266	(24")	1910772.55	991975.34	
7000	(24")	1910268.51	992210.07	
13363	(36")	1910323.77	992185.70	

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APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/23/2020 10:25:26 AM
CAD FILE: J:\2017\170818\CAD\Dwgs\D\15-18 TREE REMOVAL & TREE PROTECTION PLANS.dwg

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FAX: 815.385.1781 | HRGreen.com

FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
TREE REMOVAL TABLES

SHEET NO.
18

Xrefs: xg1-1-dh01; 170818-xv-survey; xc-1-align; 170818-xc-removals; xc-1-row

STORM STRUCTURES

ST-100: INLET
RIM: 731.36
INV N: 727.56 (12" PVC)
INV SW: 727.61 (12" PVC)

ST-101: INLET
RIM: 732.74
INV W: 729.89 (12" RCP)
INV NE: 728.99 (12" RCP)

ST-102: INLET
RIM: 731.23
INV E: 728.93 (12" PVC)

ST-103: MANHOLE
RIM: 731.11
INV W: 727.46 (12" RCP)
INV S: 727.46 (12" RCP)
INV E" 727.36 (12" RCP)

ST-104: FES
INV W: 725.88 (12" RCP)

ST-105: OUTLET
INV: 711.82 (18" RCP)

ST-106: INLET
RIM: 715.56
INV NE: 712.86 (18" RCP)
INV SW: 712.78 (18" RCP)

ST-107: MANHOLE
RIM: 718.14
INV SW: 715.49 (18" RCP)
INV NE: 715.54 (18" RCP)

ST-108: INLET
RIM: 719.59
INV W: 716.59 (12" RCP)

ST-109: MANHOLE
RIM: 720.10
INV W/NW: 716.70 (12" RCP)
INV NW: 715.60 (12" RCP)
INV NE: 716.30 (12" RCP)

ST-110: INLET
RIM: 721.53
INV SE: 717.26 (12" RCP)

ST-111: MANHOLE
RIM: 719.30
INV SE: 713.35 (12" PVC)
INV NE: 713.05 (12" PVC)
INV NW: 714.10 (12" RCP)

ST-112: CATCH BASIN
RIM: 719.02
INV SW: 715.32 (12" RCP)
INV SE: 715.22 (12" RCP)
INV NW: 716.52 (6" PVC)

ST-113: INLET
RIM: 720.82
INV NE: 717.92 (12" RCP)

ST-114: PIPE IN CULVERT
INV SW: 713.2± (12" RCP) **(REMOVE 16 LIN FT STARTING FROM CULVERT)**

ST-115: INLET **(REMOVE – TBF: 0.5 CU YD)**
RIM: 716.90
INV SW: 713.40 (12" RCP)

ST-116: PIPE IN CULVERT
INV NE: 711.7± (12" RCP) **(REMOVE 14 LIN FT)**

ST-117: INLET
RIM: 723.28
INV NW: 720.45 (12" RCP)
INV SE: 721.15 (4" PVC)

ST-118: INLET
RIM: 723.28
INV NW: 720.22 (12" RCP)
INV SE: 720.22 (12" RCP)

ST-119: MANHOLE
RIM: 724.86
INV W: 721.26 (12" RCP)
INV NE: 721.28 (12" RCP)

ST-120: MANHOLE
RIM: 724.13
INV SW: 719.70 (12" RCP)
INV E: 720.50 (12" RCP)
INV S: 719.80 (12" RCP)

ST-121: MANHOLE **(REMOVE)**
RIM: 716.91
INV SW: 712.51 (15" RCP) **(REMOVE 16 LIN FT)**
INV S: 712.91 (12" RCP) **(REMOVE 11 LIN FT)**
INV NE: 713.01 (12" RCP) **(REMOVE 75 LIN FT STARTING FROM STRUCTURE)**

ST-122: INLET **(REMOVE); TBF: 0.5 CU YD**
RIM: 716.79
INV SW: 713.49 (12" RCP) **(REMOVE)**
INV N: 713.64 (12" RCP) **(REMOVE 7.0 LIN FT – TBF: 5.7 CU YD)**

ST-123: INLET **(REMOVE – TBF 0.5 CU YD)**
RIM: 716.80
INV NE: 713.65 (12" RCP) **(REMOVE)**

ST-124: PIPE IN CULVERT
INV: 711.6± (15" RCP) **(REMOVE)**

SANITARY STRUCTURES

SA-100: MANHOLE
RIM: 716.43
INV NE: 710.71 (10" PVC)

SA-101: LIFT STA MANHOLE
RIM: 722.64
(STRUCTURE LID LOCKED)

SA-102: LIFT STA MANHOLE
RIM: 722.62
T/P SW: 710.71 (2 @ 1.5" STEEL)

SA-103: MANHOLE
RIM: 720.11
INV N/NE&SW: 705.91 (12" VCP)
INV NE: 705.91 (12" VCP)

SA-104: MANHOLE
RIM: 719.50
INV NE: 706.25 (8" VCP)
INV SW: 706.10 (8" VCP)

SA-105: MANHOLE
RIM: 719.21
INV NW&SW: 706.11 (12" VCP)

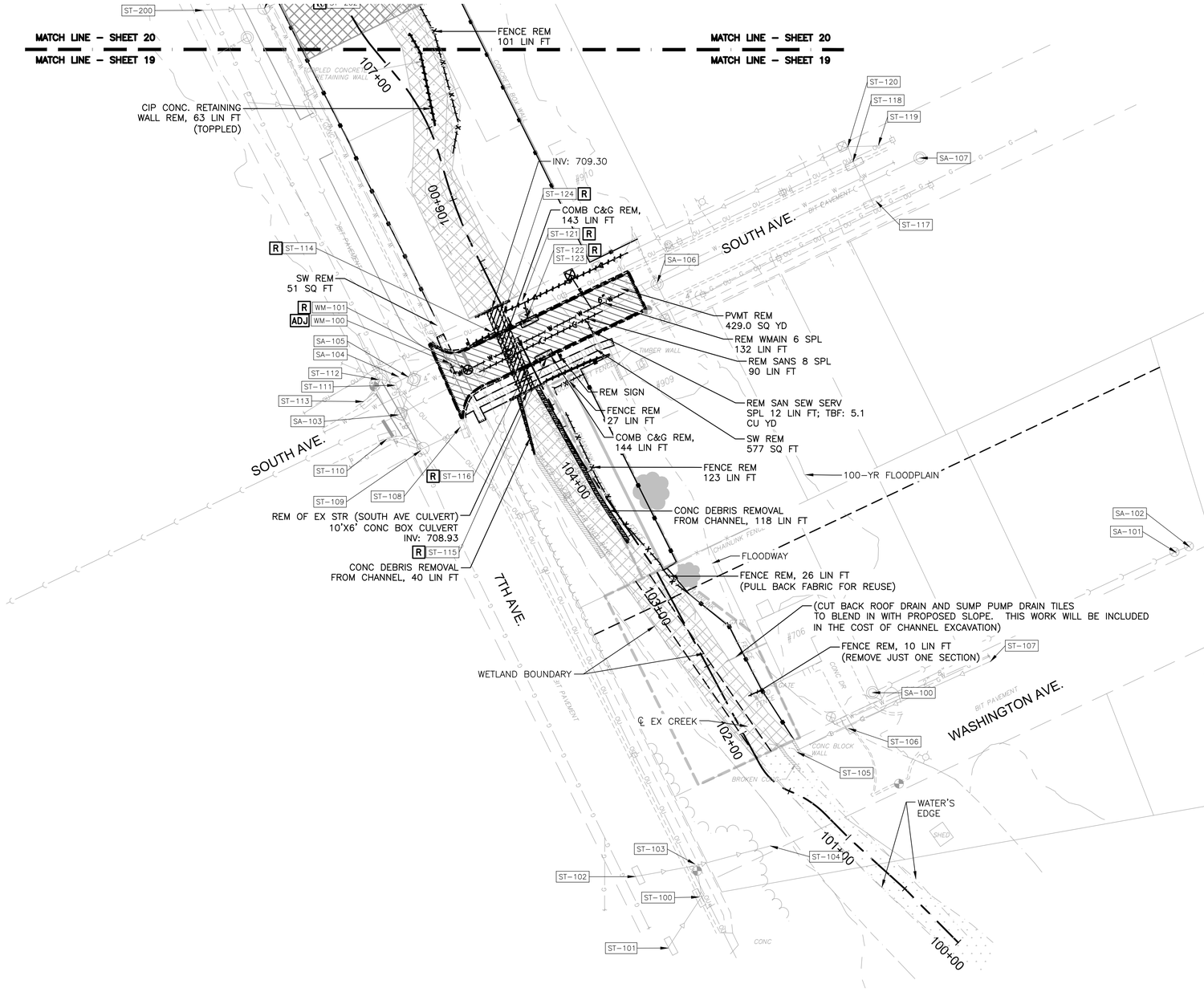
SA-106: MANHOLE
RIM: 719.15
INV NE: 708.20 (8" VCP)
INV SW: 707.45 (8" VCP) **(REMOVE 90 LIN FT STARTING FROM STRUCTURE)**

SA-107: MANHOLE
RIM: 725.71
INV NE&SW: 717.71 (6" VCP)
INV NW&SE: 717.71 (8" VCP)

WATER MAIN STRUCTURES

WM-100: VALVE VAULT **(ADJUST)**
RIM: 718.32
T/P NW&SE: 710.77

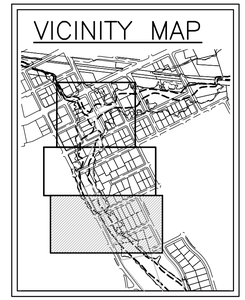
WM-101: VALVE VAULT **(REMOVE)**
RIM: 718.03
T/P SW&NE: 712.03 **(REMOVE)**



1 PLAN
SCALE: Custom

NORTH
0 10 20 40

VICINITY MAP



LEGEND:

- INDICATES EXISTING WETLAND LIMITS
- INDICATES PAVEMENT REMOVAL OR PATCHES
- INDICATES DRIVEWAY PAVEMENT REMOVAL
  - CONCRETE
  - HMA
- INDICATES SIDEWALK REMOVAL
- INDICATES CLEARING AND GRUBBING AREA
- INDICATES NON-SPECIAL WASTE REMOVAL AREA
- R — INDICATES STRUCTURE TO BE REMOVED
- ADJ — INDICATES STRUCTURE TO BE ADJUSTED
- INDICATES TREE TRUNK PROTECTION
- INDICATES PIPE REMOVAL OR ABANDONMENT
  - STORM SEWER
  - WATER MAIN
  - SANITARY
- INDICATES CURB REMOVAL
- INDICATES SAWCUT

NOTES:

1. ALL CONSTRUCTION ENTRANCES, STOCKPILE LOCATIONS, STAGING LOCATIONS AND WASHOUT AREAS LOCATED ON PLANS ARE FOR REFERENCE ONLY. LOCATIONS AND SIZES ARE TO BE DETERMINED BY CONTRACTOR, CITY AND ENGINEER
2. SEE TREE REMOVAL AND TREE PROTECTION PLANS FOR TREE REMOVAL, SIZES AND QUANTITIES.
3. ALL DEWATERING OPERATIONS MUST FOLLOW THE ILLINOIS URBAN MANUAL PRACTICE STANDARD 813.
4. BACKUP QUANTITIES OF BEST MANAGEMENT PRACTICES HIGHLIGHTED ON THIS PLAN WILL BE HELD ON SITE FOR IMMEDIATE CORRECTIONAL ACTION IMPLEMENTATION FOLLOWING AN INSTANCE OF NON-COMPLIANCE.
5. ALL TRAFFIC GOING IN AND OUT OF THE CONSTRUCTION SITE SHALL BE RESTRICTED TO STABILIZED CONSTRUCTION ENTRANCES.
6. ANY INLET FOUND WITHIN 50' OF A CONSTRUCTION ENTRANCE SHALL HAVE PROTECTION MECHANISMS IN PLACE.
7. ALL DISTURBED GROUND DIRECTLY UPLAND OF JURISDICTIONAL AREAS (7th AVENUE CREEK) SHALL RECEIVE ADEQUATE PROTECTION MEASURES AT THE CONCLUSION OF EACH WORK DAY

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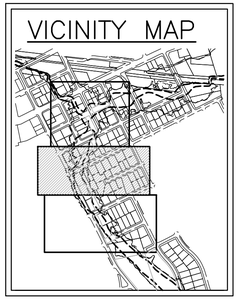
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
EXISTING CONDITIONS & DEMO PLAN – SOUTH AREA

SHEET NO. 19

Xrefs: xg-1-dh01; 170818-xc-removals; 170818-xv-survey; xc-1-align; xc-1-row

VICINITY MAP



LEGEND:

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- INDICATES PAVEMENT REMOVAL OR PATCHES
- INDICATES DRIVEWAY PAVEMENT REMOVAL
  - CONCRETE
  - HMA
- INDICATES SIDEWALK REMOVAL
- INDICATES CLEARING AND GRUBBING AREA
- INDICATES NON-SPECIAL WASTE REMOVAL AREA
- R — INDICATES STRUCTURE TO BE REMOVED
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- INDICATES TREE TRUNK PROTECTION
- INDICATES PIPE REMOVAL OR ABANDONMENT
  - STORM SEWER
  - WATER MAIN
  - SANITARY
- INDICATES CURB REMOVAL
- INDICATES SAWCUT

NOTES:

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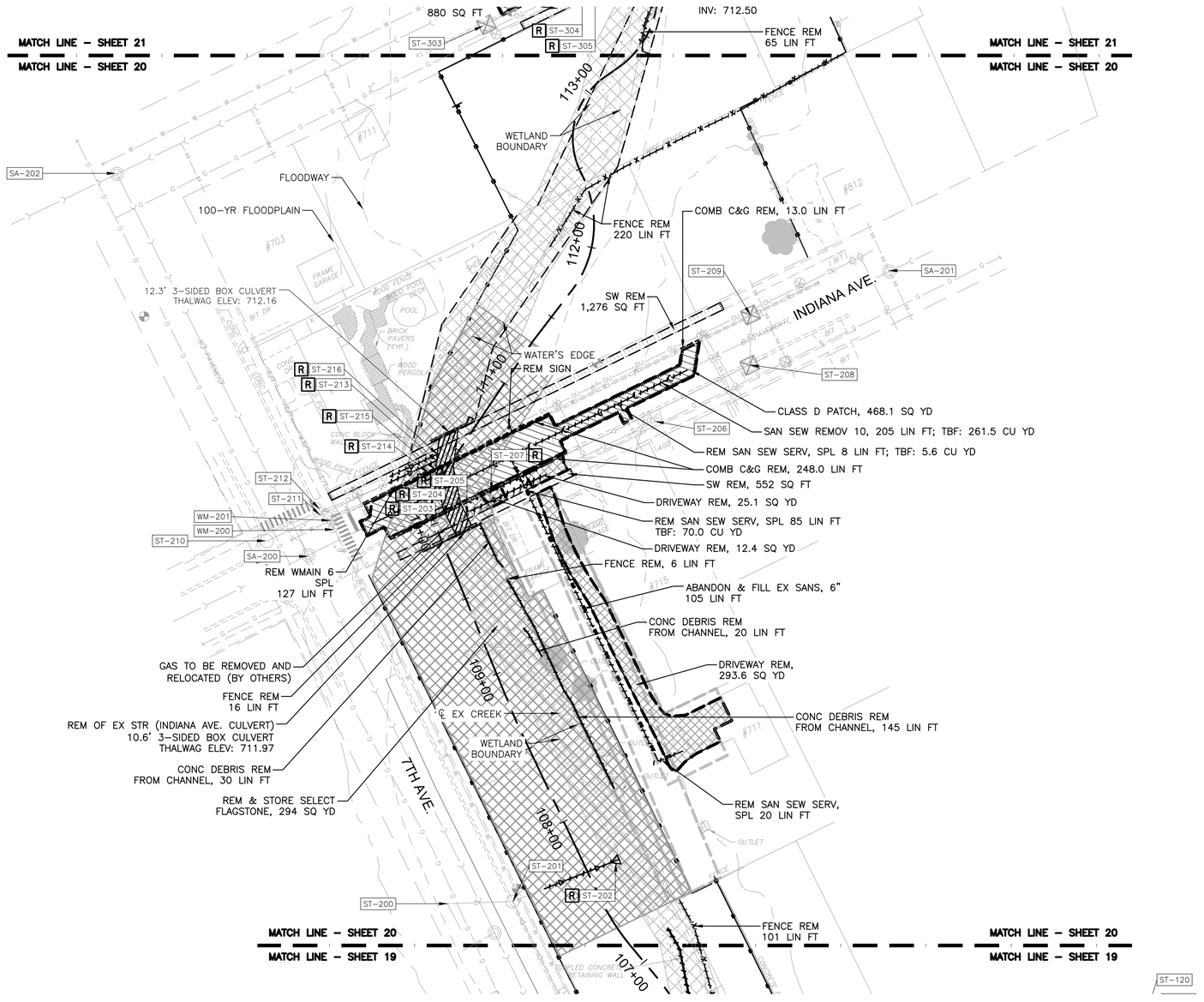
5. ALL TRAFFIC GOING IN AND OUT OF THE CONSTRUCTION SITE SHALL BE RESTRICTED TO STABILIZED CONSTRUCTION ENTRANCES.
6. ANY INLET FOUND WITHIN 50' OF A CONSTRUCTION ENTRANCE SHALL HAVE PROTECTION MECHANISMS IN PLACE.
7. ALL DISTURBED GROUND DIRECTLY UPLAND OF JURISDICTIONAL AREAS (7TH AVENUE CREEK) SHALL RECEIVE ADEQUATE PROTECTION MEASURES AT THE CONCLUSION OF EACH WORK DAY



1 **PLAN**
SCALE: 1" = 40'

NORTH
0 10 20 40

STORM STRUCTURES

ST-200: MANHOLE
RIM: 716.89
INV E: 713.94 (12" RCP)
INV S: 714.04 (12" RCP)

ST-201: CATCH BASIN
RIM: 716.19
INV SE: 712.94 (10" RCP)
INV W: 712.94 (12" RCP)
INV NE: 712.54 (12" RCP)

ST-202: FES **(REMOVE)**
INV: 711.50 (12" RCP) **(REMOVE 50 LIN FT STARTING FROM STRUCTURE)**

ST-203: INLET **(REMOVE)**
RIM: 717.44
INV SW: 713.09 (10" PVC)
INV NE: 713.09 (10" PVC) **(REMOVE 24 LIN FT)**

ST-204: PIPE IN CULVERT
INV SW: 713.3± (10" RCP) **(REMOVE 11 LIN FT)**

ST-205: PIPE IN CULVERT
INV NE: 713.5± (15" RCP) **(REMOVE 55 LIN FT STARTING FROM CULVERT)**

ST-206: MANHOLE
RIM: 719.98
INV SW: 715.08 (15" RCP)
INV SE: 715.38 (15" RCP)

ST-207: PIPE IN CULVERT
(COULD NOT LOCATE)

ST-208: MANHOLE
RIM: 721.63
INV SW: 716.88 (10" VCP) **(REMOVE 50 LIN FT STARTING FROM CULVERT)**
INV NE: 719.93 (10" VCP)
INV N: 717.53 (10" RCP)

ST-209: INLET
RIM: 722.23
INV S: 718.63 (10" RCP)

ST-210: CATCH BASIN
RIM: 719.87
INV NW: 716.82 (10" PVC)
INV NE: 716.72 (12" RCP)
INV SW: 716.62 (10" RCP)

ST-211: MANHOLE
RIM: 719.09
INV NE: 716.14 (10" RCP)
INV E: 715.79 (12" RCP)
INV W: 715.79 (12" RCP)

ST-212: INLET
RIM: 719.00
INV SW: 716.80 (10" RCP)

ST-213: PIPE IN CULVERT
INV W: 713.6± (12" RCP) **(REMOVE 33 LIN FT STARTING FROM CULVERT – TBF: 11.4 CU YD)**

ST-214: INLET **(REMOVE)**
RIM: 717.38
INV NE: 714.53 (6" PVC) **(REMOVE 3 LIN FT))**

ST-215: PIPE IN CULVERT
INV W: 714.5± (6" PVC) **(REMOVE)**

ST-216: PIPE IN CULVERT
INV W: 714.9± (12" RCP) **(REMOVE 33 LIN FT – TBF: 7.3 CU YD)**
(APPEARS TO BE ABANDONED)

SANITARY STRUCTURES

SA-200: MANHOLE
RIM: 719.62
INV NW&SE: 708.7± (12" VCP)
INV NE&SW: 708.7± (8" VCP)

SA-201: MANHOLE
RIM: 724.64
INV SW: 715.44 (10" VCP) **(REMOVE 205 LIN FT)**
INV NE: 718.74 (10" VCP)
INV NW: 717.94 (6" VCP)
INV SE: 720.09 (6" VCP)

SA-202: MANHOLE (DROP)
RIM: 724.88
INV SE&NE: 708.98 (12" VCP)
INV W: 708.98 (8" VCP)
INV W (UPPER): 718.8 (6" VCP)

WATER MAIN STRUCTURES

WM-200: VALVE VAULT
RIM: 718.87
T/P NW&SE: 713.97

WM-201: VALVE VAULT
RIM: 718.77
T/P: NW&SE: 713.87

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APPROVED: DVM	JOB NUMBER: 170818	0 1"	
CAD DATE: 10/28/2020 8:19:40 AM		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD FILE: J:\2017\170818\CAD\Dwgs\D\19-21 EXISTING CONDITIONS & DEMO PLAN PLANS.dwg			

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McHENRY, ILLINOIS 60050
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FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
EXISTING CONDITIONS & DEMO PLAN – CENTRAL AREA

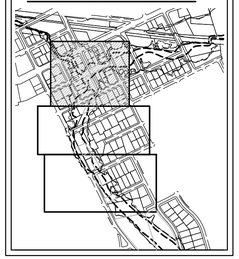
SHEET NO. 20

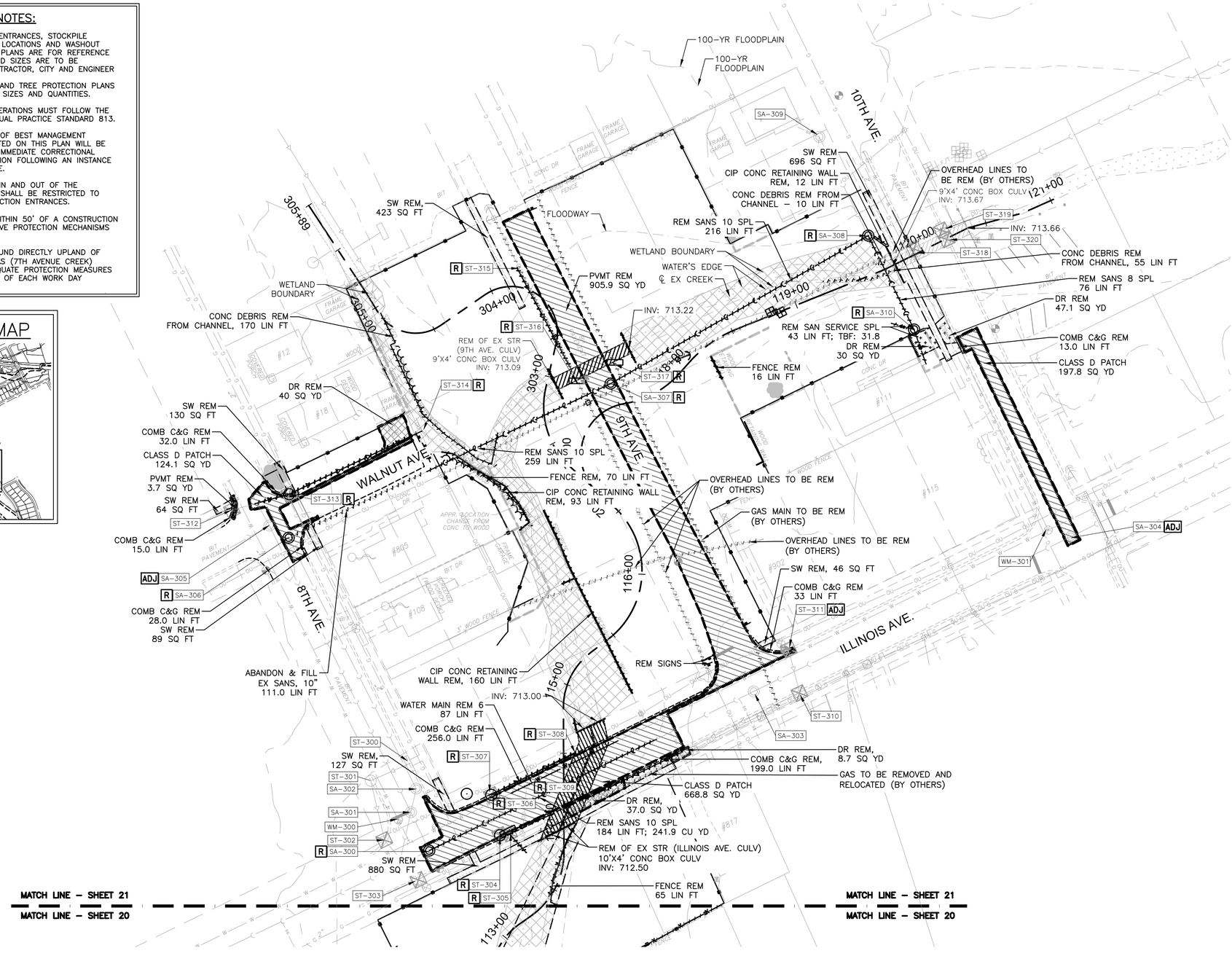
Xrefs: xg|-1-dh01; 170818-xc-removals; 170818-xv-survey; xc-1-algn; xc-1-row

NOTES:

1. ALL CONSTRUCTION ENTRANCES, STOCKPILE LOCATIONS, STAGING LOCATIONS AND WASHOUT AREAS LOCATED ON PLANS ARE FOR REFERENCE ONLY. LOCATIONS AND SIZES ARE TO BE DETERMINED BY CONTRACTOR, CITY AND ENGINEER
2. SEE TREE REMOVAL AND TREE PROTECTION PLANS FOR TREE REMOVAL, SIZES AND QUANTITIES.
3. ALL DEWATERING OPERATIONS MUST FOLLOW THE ILLINOIS URBAN MANUAL PRACTICE STANDARD 813.
4. BACKUP QUANTITIES OF BEST MANAGEMENT PRACTICES HIGHLIGHTED ON THIS PLAN WILL BE HELD ON SITE FOR IMMEDIATE CORRECTIONAL ACTION IMPLEMENTATION FOLLOWING AN INSTANCE OF NON-COMPLIANCE.
5. ALL TRAFFIC GOING IN AND OUT OF THE CONSTRUCTION SITE SHALL BE RESTRICTED TO STABILIZED CONSTRUCTION ENTRANCES.
6. ANY INLET FOUND WITHIN 50' OF A CONSTRUCTION ENTRANCE SHALL HAVE PROTECTION MECHANISMS IN PLACE.
7. ALL DISTURBED GROUND DIRECTLY UPLAND OF JURISDICTIONAL AREAS (7TH AVENUE CREEK) SHALL RECEIVE ADEQUATE PROTECTION MEASURES AT THE CONCLUSION OF EACH WORK DAY

VICINITY MAP





1 PLAN
SCALE: 1" = 40'

NORTH
0 10 20 40

STORM STRUCTURES

ST-300: INLET
RIM: 717.99
INV W: 715.79 (12" RCP)

ST-301:CATCH BASIN
RIM: 718.22
INV SW: 715.52 (6" DI)
INV S: 715.32 (15" RCP)
INV E: (COULD NOT MEASURE) (12" RCP)

ST-302: MANHOLE
RIM: 718.53
INV N: 714.73 (15" RCP)
INV SW: 714.73 (15" RCP)
INV SE: 714.88 (15" RCP)

ST-303: CATCH BASIN
RIM: 718.63
SUMP: 713.63
INV NW: 714.83 (15" RCP)
INV NE: 714.78 (15" RCP)

ST-304: CATCH BASIN **(REMOVE)**
RIM: 717.72
INV SW: 714.47 (15" RCP)
INV NE: 714.52 (15" RCP)
INV E: 714.57 (10" PVC)

ST-305: INLET **(REMOVE)**
RIM: 717.50
INV SW: 714.75 (10" RCP) **(REMOVE 7 LIN FT)**
INV SE: 715.92 (4" PVC) **(REMOVE 19 LIN FT)**

ST-306: PIPE IN CULVERT
(REMOVE 39.0 LIN FT – TBF: 16.8 CU YD)
INV SW: 714.1± (15" RCP)

ST-307: CATCH BASIN **(REMOVE)**
RIM: 717.38
INV NE: 714.13 (15" RCP)

ST-308: PIPE IN CULVERT
(REMOVE 68.0 LIN FT – TBF: 33.8 CU YD)
INV SW: 714.3± (12" RCP)

ST-309: PIPE IN CULVERT
INV NW: 714.2± (12" RCP)
(REMOVE 78 LIN FT STARTING FOR CULVERT – TBF: 7.1 CU YD)

ST-310: CATCH BASIN
RIM: 722.20
INV N: 718.50 (12" RCP)
INV SW: 718.50 (12" RCP)
INV SE: 720.10 (4" PVC)

ST-311: CATCH BASIN **(ADJUST)**
RIM: 722.32
INV S: 719.52 (12" RCP)

ST-312: INLET **(REMOVE)**
RIM: 721.50
INV E: 718.05 (12" RCP)

ST-313: CATCH BASIN **(REMOVE)**
RIM: 720.99
INV W: 717.69 (12" RCP)
(REMOVE 26' STARTING FROM STRUCTURE)
INV NE: 717.39 (15" RCP) **(REMOVE 107 LIN FT)**

ST-314: OUTLET **(REMOVE)**
INV: 716.15 (18" CMP)

ST-315: CULVERT END **(REMOVE)**
INV SE: 717.15 (12" CMP) **(REMOVE 84 LIN FT)**

ST-316: INLET **(REMOVE)**
RIM: 718.03
INV N: 714.63 (6" VCP)

ST-317: INLET **(REMOVE)**
RIM: 717.85
INV N: 714.95 (6" VCP)

ST-318: DROP INLET
RIM: 721.07

ST-319: INLET
RIM: 720.82
INV SE: 719.12 (10" PVC)

ST-320: DROP INLET
RIM: 720.88
INV NW: 719.13 (10" PVC)

SANITARY STRUCTURES

SA-300: MANHOLE (DROP)
RIM: 718.88
INV NW (UPPER): 714.48 (10" VCP)
INV SW&NE&NW: 710.48 (10" VCP)
(REMOVE 184 LIN FT FOR NE SEWER)

SA-301: MANHOLE (DROP)
RIM: 719.01
INV NW&NE&SW&SE: 710.31 (10" VCP)
INV SE (UPPER): 714.41 (8" VCP)

SA-302: MANHOLE
RIM: 718.60
INV SW: 710.48 (10" VCP)
INV NW: 710.48 (10" DI)

SA-303: MANHOLE
RIM: 722.08
INV SW&NE: 711.63 (10" PVC)

SA-304: MANHOLE **(ADJUST)**
RIM: 725.25
INV SW&NE: 712.65

SA-305: MANHOLE **(ADJUST)**
RIM: 721.53
INV NW&SW&SE: 712.53 (10" VCP)

SA-306: MANHOLE **(REMOVE)**
RIM: 720.98
INV NE: 711.03 (10" DI) **(ABANDON 111 LIN FT)**
INV SE: 711.03 (10" DI)

SA-307: MANHOLE **(REMOVE)**
RIM: 718.94
INV NE&SE: 711.84 (10" DI) **(REMOVE 148 LIN FT)**

SA-308: MANHOLE **(REMOVE)**
RIM: 722.11
INV NW: 713.01 (10" DI)
INV SE: 713.01 (8" VCP) **(REMOVE 76 LIN FT)**
INV SW: 712.91 (10: DI) **(REMOVE 216 LIN FT))**
INV NE: 712.91 (10" DI)

SA-309: MANHOLE
RIM: 722.65
INV NW: 713.05 (6" VCP)
INV SW: 713.15 (6" VCP)
INV SE: 713.05 (10" DI)

SA-310: MANHOLE **(REMOVE – TBF: 6.5 CU YD)**
RIM: 722.41
INV NW: 713.16 (6" VCP) **(REMOVE)**
INV S: 713.26 (6" VCP) **(REMOVE)**
INV N/NW: 713.16 (8" VCP) **(REMOVE)**

WATER MAIN STRUCTURES

WM-300: VALVE VAULT
RIM: 718.61
T/P NW&SE: 713.91

WM-301: VALVE VAULT
RIM: 724.95
T/P SW&NE&NW: 718.55

LEGEND:

- INDICATES EXISTING WETLAND LIMITS
- INDICATES PAVEMENT REMOVAL OR PATCHES
- INDICATES DRIVEWAY PAVEMENT REMOVAL
  - CONCRETE
  - HMA
- INDICATES SIDEWALK REMOVAL
- INDICATES CLEARING AND GRUBBING AREA
- INDICATES NON-SPECIAL WASTE REMOVAL AREA
- R — INDICATES STRUCTURE TO BE REMOVED
- ADJ — INDICATES STRUCTURE TO BE ADJUSTED
- INDICATES TREE TRUNK PROTECTION
- INDICATES PIPE REMOVAL OR ABANDONMENT
  - STORM SEWER
  - WATER MAIN
  - SANITARY
- INDICATES CURB REMOVAL
- INDICATES SAWCUT

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APPROVED:	DVM	JOB NUMBER:	170818
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CAD FILE:	J:\2017\170818\CAD\Dwgs\D\19-21 EXISTING CONDITIONS & DEMO PLAN PLANS.dwg		

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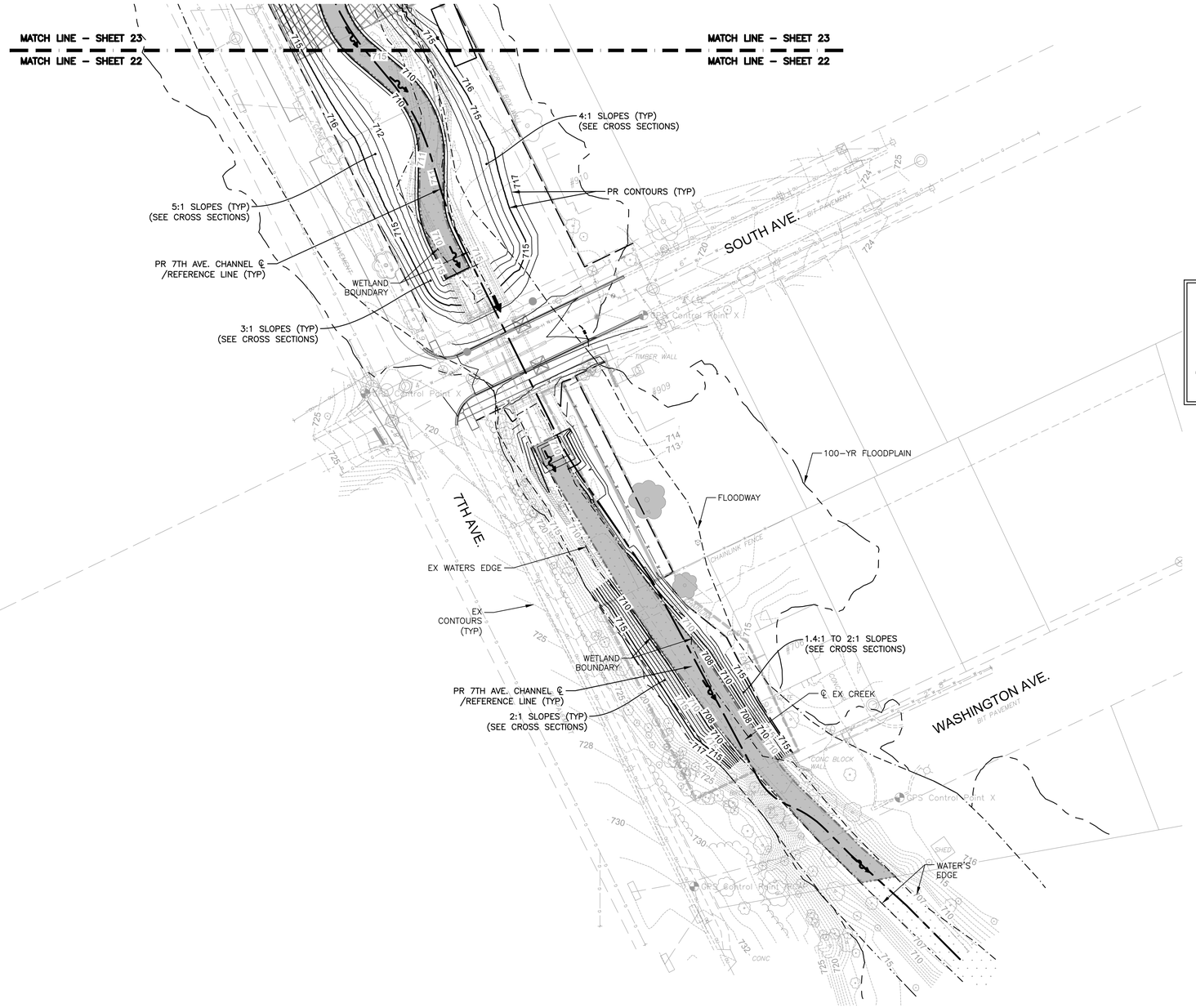
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

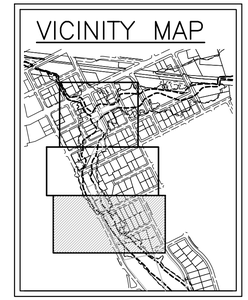
SHEETS
EXISTING CONDITIONS & DEMO PLAN – NORTH AREA

SHEET NO.
21

Xrefs: xg|-1-dh01; 170818-xc-removals; 170818-xv-survey; xc-1-algn; xc-1-row



VICINITY MAP



LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)

1 GRADING PLAN

SCALE: 1" = 40'

NORTH

0 10 20 40

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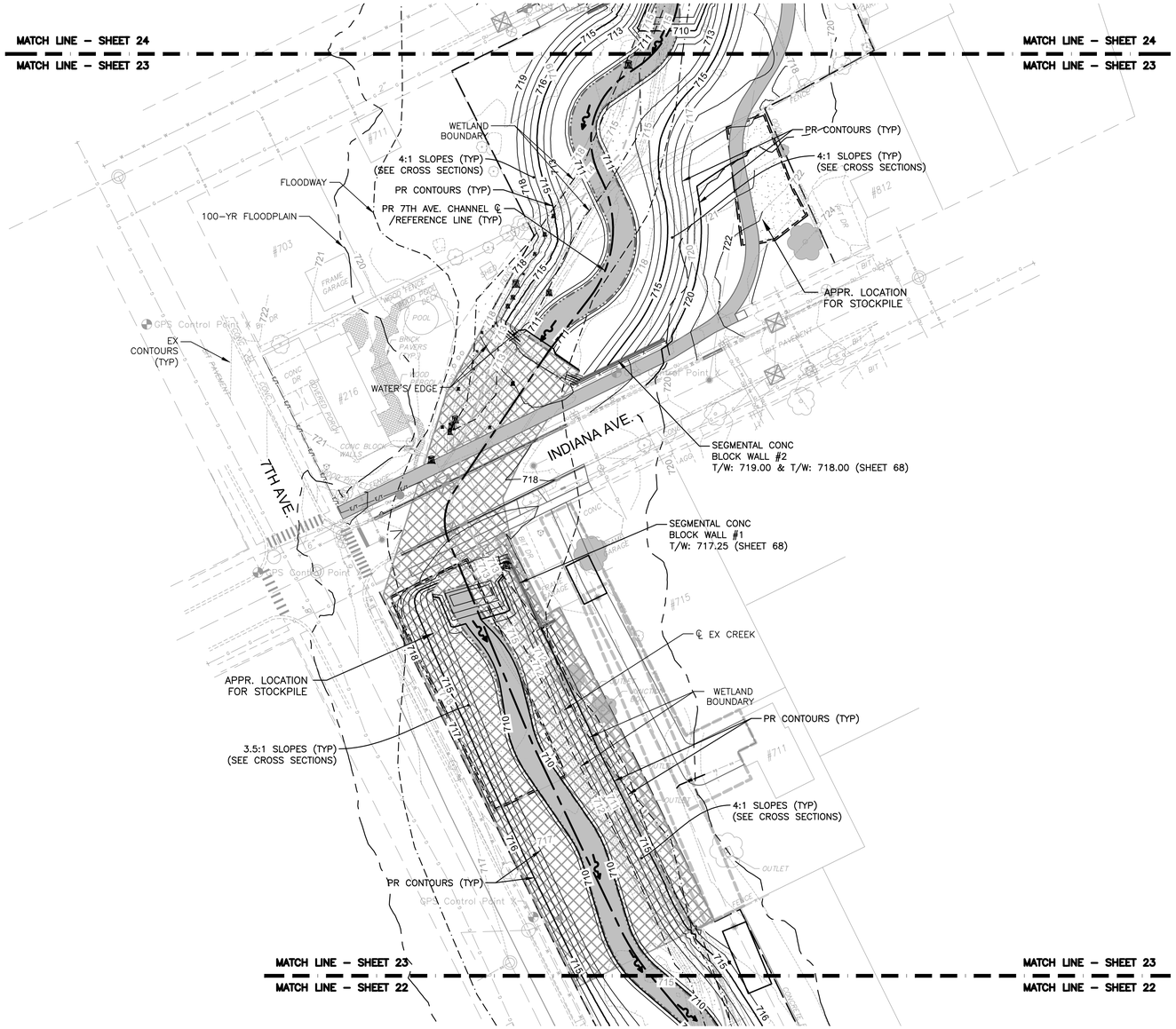
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
GRADING PLAN – SOUTH AREA

SHEET NO.
22



1 GRADING PLAN

SCALE: 1" = 40'

NORTH

0 10 20 40

VICINITY MAP

LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)

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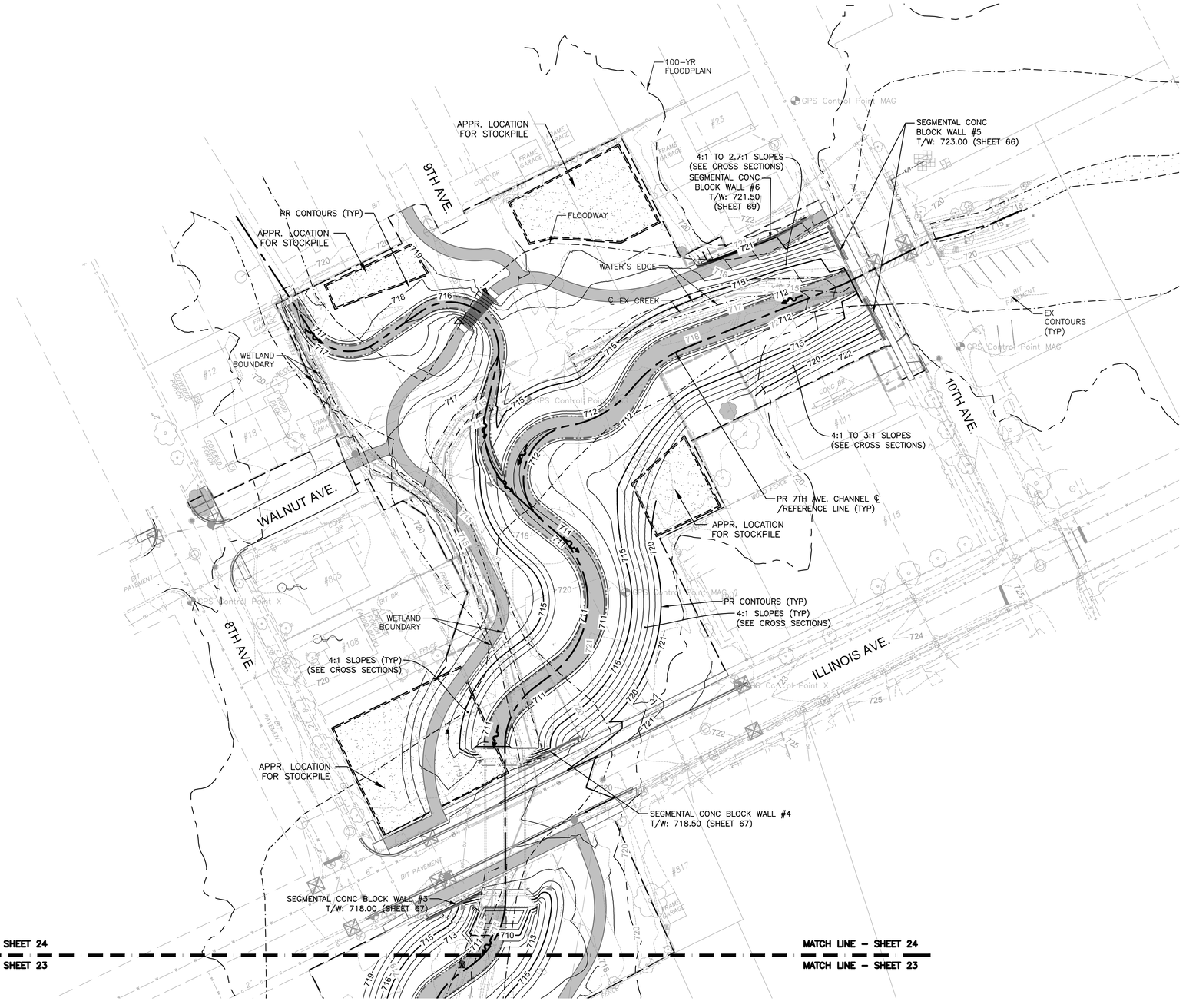
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

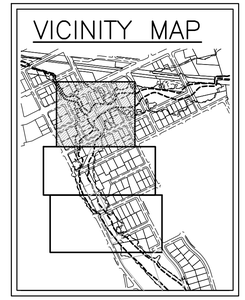
SHEETS
GRADING PLAN – CENTRAL AREA

SHEET NO. 23

Xrefs: xgt-1-dh01; 170818-xv-survey; xc-1-surf; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-1-row; 170818-xc-removals; xc-1-algn



VICINITY MAP



LEGEND:

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- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)

1 GRADING PLAN

SCALE: 1" = 40'

NORTH

0 10 20 40

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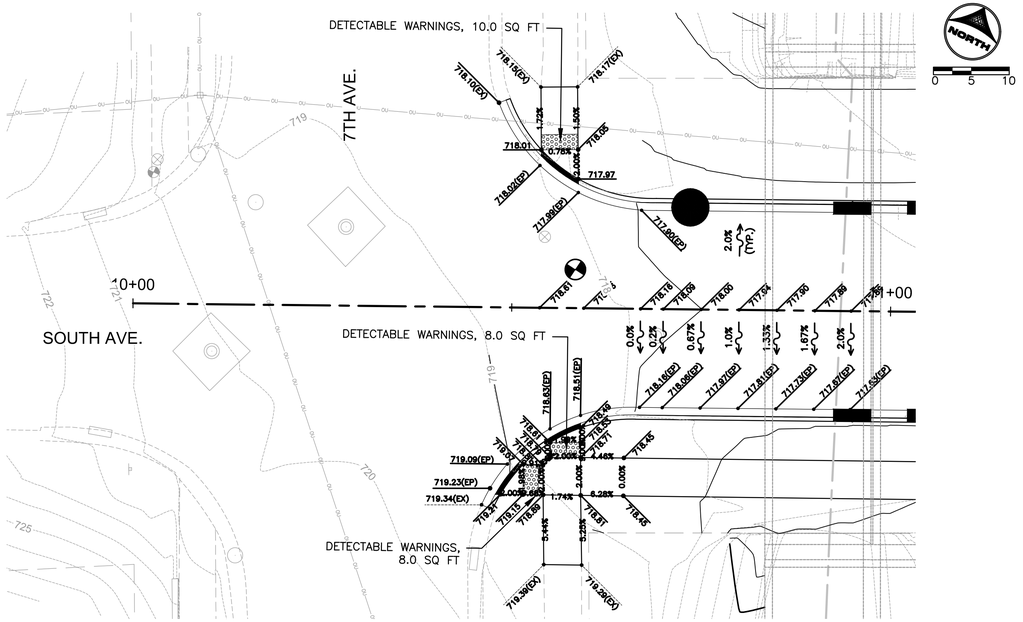
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS

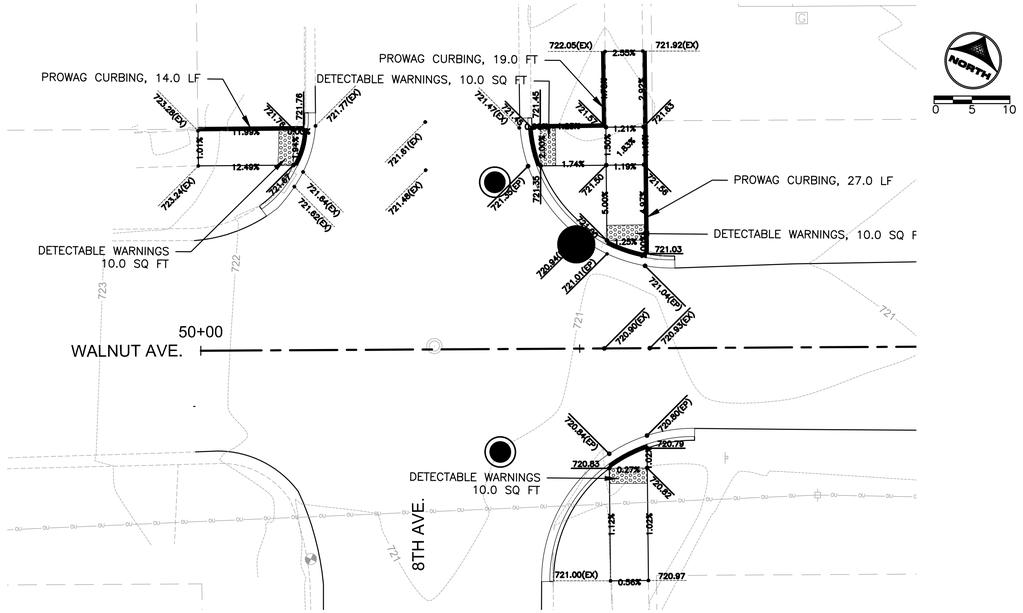
GRADING PLAN – NORTH AREA

SHEET NO. 24



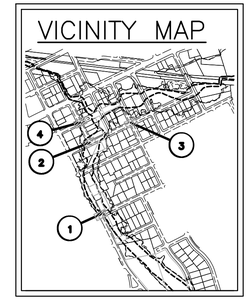
1 PROWAG – 7TH AVE & SOUTH AVE

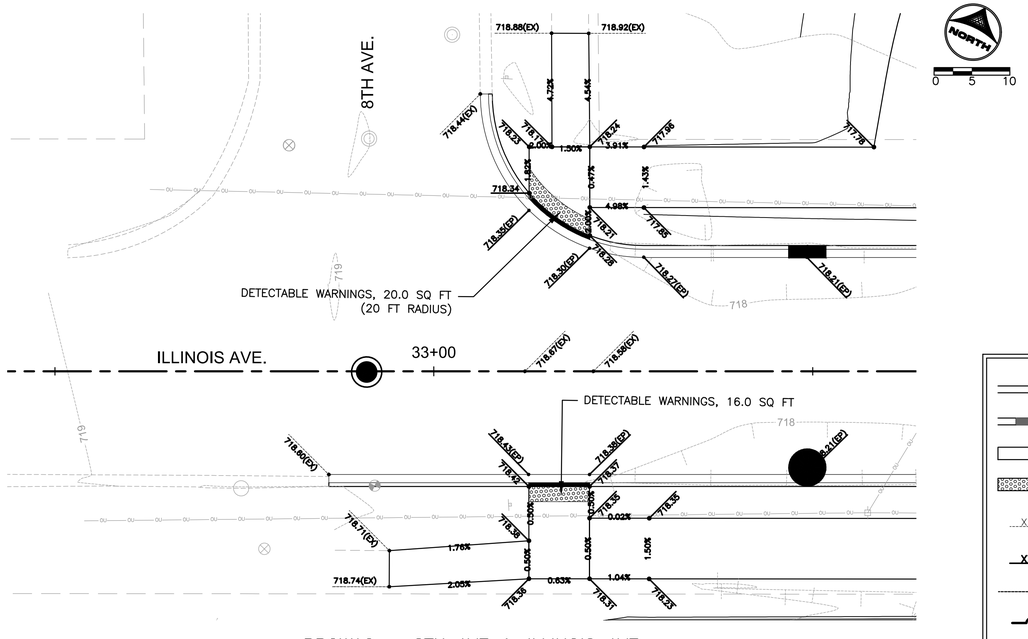
SCALE: 1" = 10'



2 PROWAG – 8TH AVE & WALNUT AVE

SCALE: 1" = 10'





3 PROWAG – 8TH AVE & ILLINOIS AVE

SCALE: 1" = 10'

LEGEND

- DENOTES CONCRETE CURB & GUTTER
- DENOTES AREA OF DEPRESSED CURB AND GUTTER.
- DENOTES PROP. SIDEWALK
- DENOTES AREA TO UTILIZE TRUNCATED DOMES
- XXX.XX — DENOTES EXISTING SPOT GRADE ELEVATIONS.
- XXX.XX — DENOTES PROPOSED SPOT GRADE ELEVATIONS.
- DENOTES RIDGE LINES
- DENOTES PROPOSED DRAINAGE DIRECTION ARROW.

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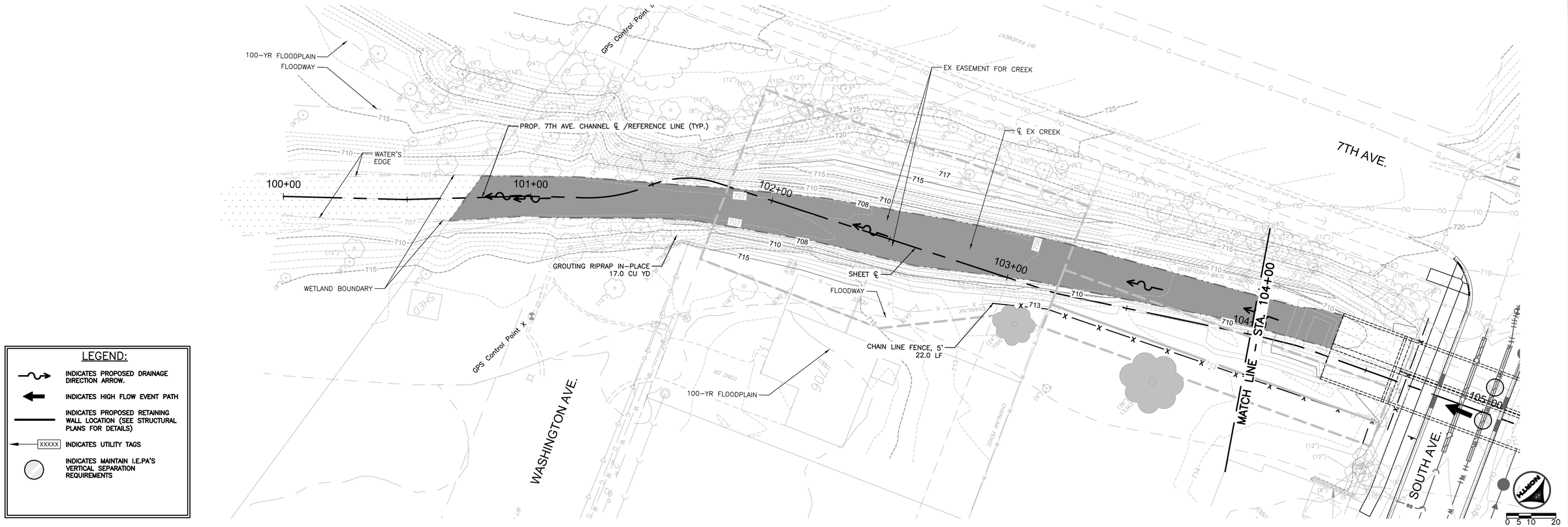
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PROWAG GRADING

SHEET NO.
25



Xrefs: xgl-1-dh01; 170818-xv-survey; xc-1-olgn; xc-1-surf; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-01-profviews 7th Ave Creek; xc-1-row; xgl-1-dh20-25-Grid; 170818-xc-removals

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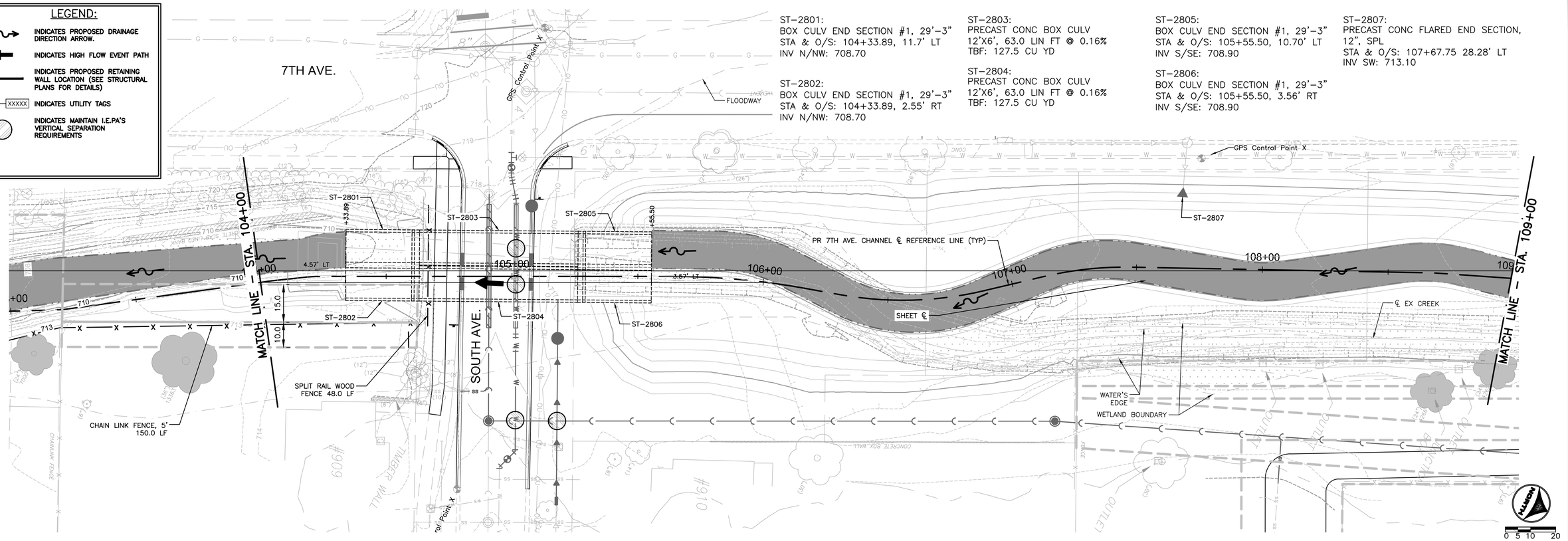
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS - PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE - 7TH AVE CREEK STA 100+00 TO 104+00

SHEET NO.
26

LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)
- XXXXX INDICATES UTILITY TAGS
- INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS



ST-2801:
BOX CULV END SECTION #1, 29'-3"
STA & O/S: 104+33.89, 11.7' LT
INV N/NW: 708.70

ST-2802:
BOX CULV END SECTION #1, 29'-3"
STA & O/S: 104+33.89, 2.55' RT
INV N/NW: 708.70

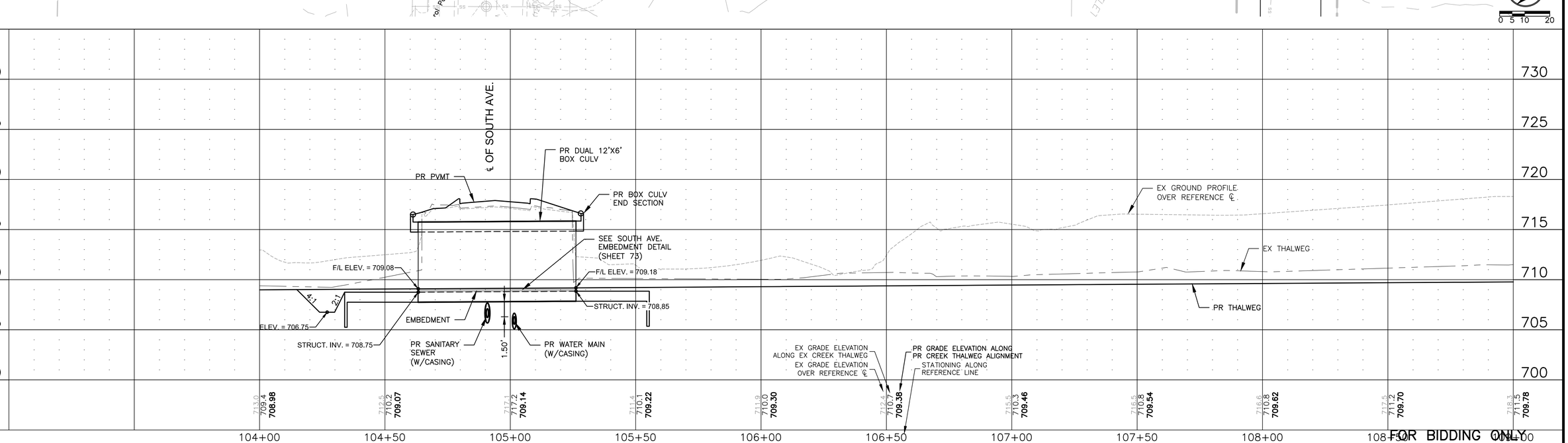
ST-2803:
PRECAST CONC BOX CULV
12'X6', 63.0 LIN FT @ 0.16%
TBF: 127.5 CU YD

ST-2804:
PRECAST CONC BOX CULV
12'X6', 63.0 LIN FT @ 0.16%
TBF: 127.5 CU YD

ST-2805:
BOX CULV END SECTION #1, 29'-3"
STA & O/S: 105+55.50, 10.70' LT
INV S/SE: 708.90

ST-2806:
BOX CULV END SECTION #1, 29'-3"
STA & O/S: 105+55.50, 3.56' RT
INV S/SE: 708.90

ST-2807:
PRECAST CONC FLARED END SECTION, 12", SPL
STA & O/S: 107+67.75 28.28' LT
INV SW: 713.10



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CAD DATE:	10/27/2020 8:06:08 PM
CAD FILE:	J:\2017\170818\CAD\Dwgs\C\26-31 PLAN & PROFILE – 7TH AVE CREEK.dwg
JOB DATE:	OCTOBER 28, 2020
JOB NUMBER:	170818

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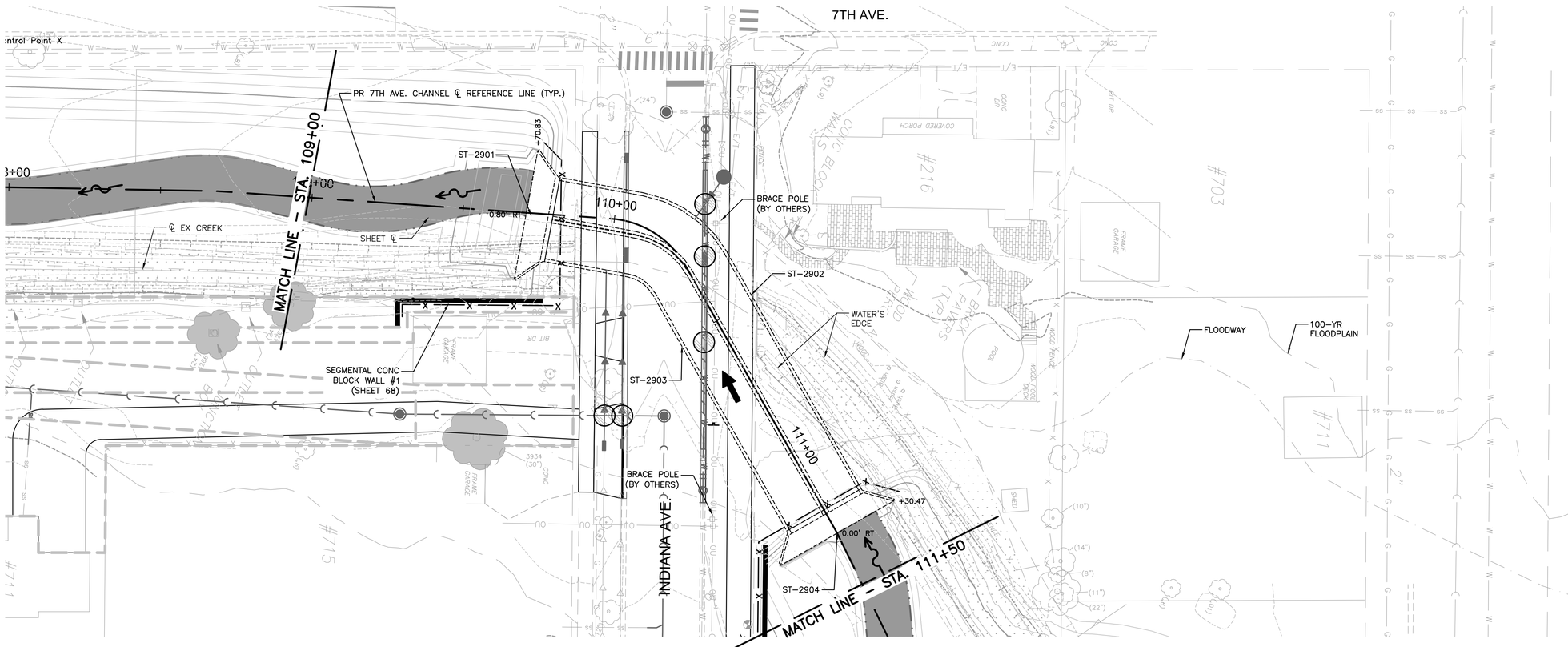
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE – 7TH AVE CREEK STA 104+00 TO 109+00

SHEET NO.
27

Xrefs: xg1-dh01; 170818-xv-survey; xc-1-algn; xc-1-surf; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-01-profviews 7th Ave Creek; xc-1-row; xg1-1-dh20-25-Grid; 170818-xc-removals



ST–2901:
BOX CULV END SECTION #2,
STA & O/S: 109+70.83, 0.80' RT
INV N/NW: 708.90

ST–2902:
PRECAST CONC BOX CULV
12'X6', 143.7 LIN FT @ 0.16%
TBF: 289.5 CU YD

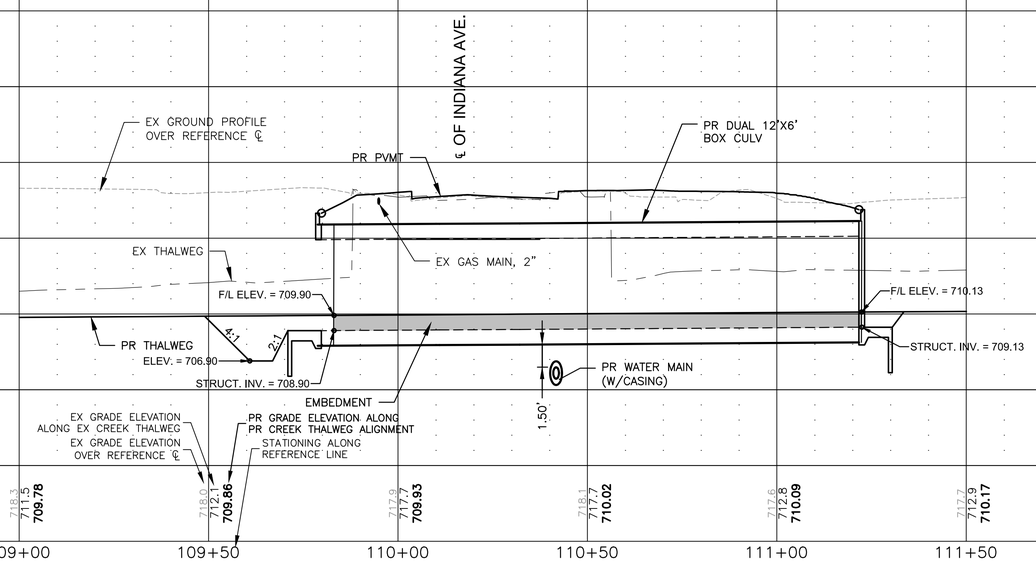
ST–2903:
PRECAST CONC BOX CULV
12'X6', 131.2 LIN FT @ 0.16%
TBF: 289.5 CU YD

ST–2904:
BOX CULV END SECTION #2,
STA & O/S: 111+30.47 0.00' RT
INV S/SE: 709.13

LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)
- XXXXX INDICATES UTILITY TAGS
- INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS

0 5 10 20



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420 N. FRONT STREET, SUITE 100
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PHONE: 815.385.1778 | TOLL FREE: 800.728.7805
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FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE – 7TH AVE CREEK STA 109+00 TO 111+50

SHEET NO.
28

ST–3001:
BOX CULV END SECTION #3,
STA & O/S: 113+73.06, 0.30' RT
INV N/NE: 709.52

ST–3002:
PRECAST CONC BOX CULV
12'X6', 88.0 LIN FT @ 0.08%
TBF: 191.0 CU YD

ST–3003:
PRECAST CONC BOX CULV
12'X6', 88.0 LIN FT @ 0.08%
TBF: 191.0 CU YD

ST–3004:
BOX CULV END SECTION #3,
STA & O/S: 114+81.66, 0.00' RT
INV S/SW: 709.60

ST–3005:
METAL END SECTION, 15"
STA & O/S: 113+64.39, 27.98' LT
INV NW: 714.05

ST–3006:
METAL END SECTION, 12"
STA & O/S: 113+84.09, 29.93' RT
INV NE: 715.55

111+00
+30.47
0.00' RT
ST–2901
MATCH LINE – STA. 111+50
112+00
113+00
114+00
115+00
116+00
MATCH LINE – STA. 117+00
GPS Control Point
INDIANA AVE.
SEGMENTAL CONC BLOCK WALL #2 (SHEET 68)
℄ EX CREEK
WATER'S EDGE
FLOODWAY
PR 7TH AVE. CHANNEL ℄ REFERENCE LINE (TYP.)
100–YR FLOODPLAIN
SEGMENTAL CONC BLOCK WALL #3 (SHEET 67)
GPS Control Point
ST–3005
+73.06
BRACE POLE (BY OTHERS)
ST–3002
0.30' RT
ST–3001
ST–3003
ST–3006
SHEETS
BIT PAVEMENT
ILLINOIS AVE.
BRACE POLE (BY OTHERS)
+81.66
WETLAND BOUNDARY
0.00' RT
ST–3004
SHEET ℄
SEGMENTAL CONC BLOCK WALL #4 (SHEET 67)
302+02
303+0
GPS Control Point MAG
PR 7TH AVE. CHANNEL REFERENCE LINE (TYP.)
NORTH
0 5 10 20

LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)
- XXXXX INDICATES UTILITY TAGS
- INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS

℄ OF ILLINOIS AVE.
PR DUAL 12'X6' BOX CULV
PR PVMT
EX GROUND PROFILE OVER REFERENCE ℄
EX THALWEG
EX GAS MAIN, 2"
F/L ELEV. = 710.52
F/L ELEV. = 710.60
4:1
2:1
ELEV. = 707.52
STRUCT. INV. = 709.52
STRUCT. INV. = 709.60
PR THALWEG
EMBEDMENT
1.50'
PR WATER MAIN (W/CASING)
EX GRADE ELEVATION ALONG EX CREEK THALWEG
EX GRADE ELEVATION OVER REFERENCE ℄
PR GRADE ELEVATION ALONG PR CREEK THALWEG ALIGNMENT
STATIONING ALONG REFERENCE LINE

730 725 720 715 710 705 700

712.7	712.9	710.17	717.2	713.3	710.25	713.5	713.5	710.33	717.8	713.3	710.41	716.7	713.2	710.49	718.1	718.1	710.54	718.7	719.0	710.58	716.3	713.1	710.63	720.3	713.6	710.70	720.6	713.4	710.78	718.5	713.3	710.85	717.8	713.3	710.93

111+50 112+00 112+50 113+00 113+50 114+00 114+50 115+00 115+50 116+00 116+50 117+00

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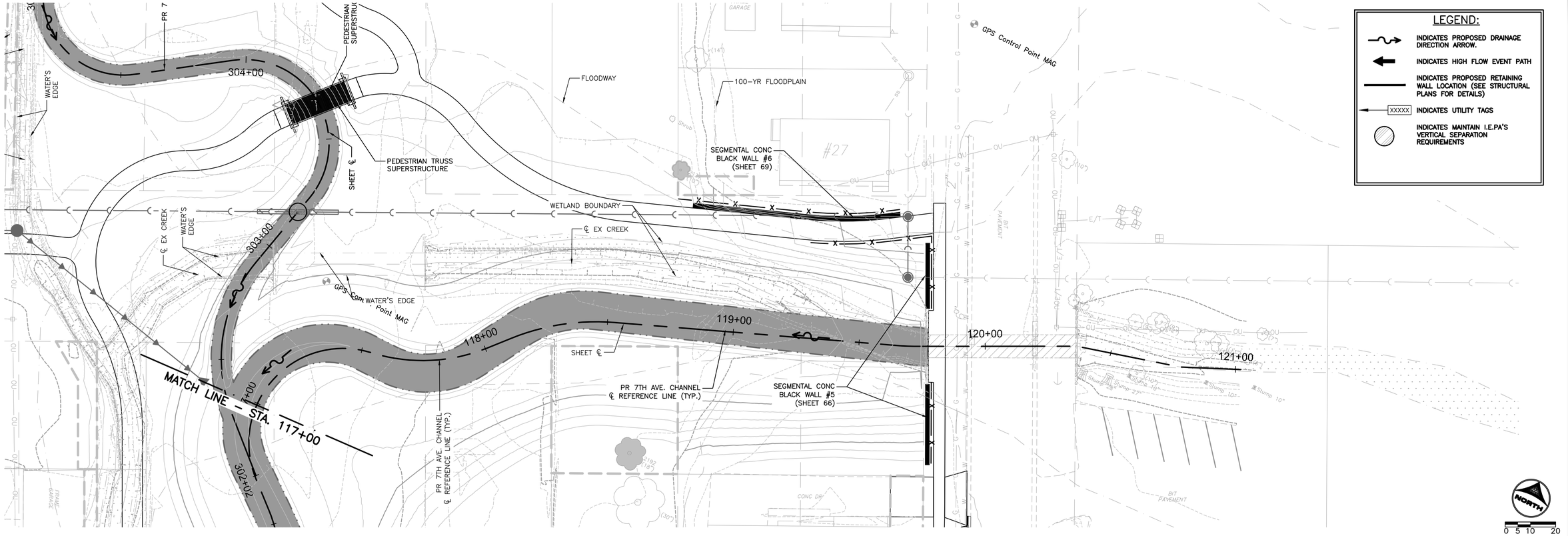
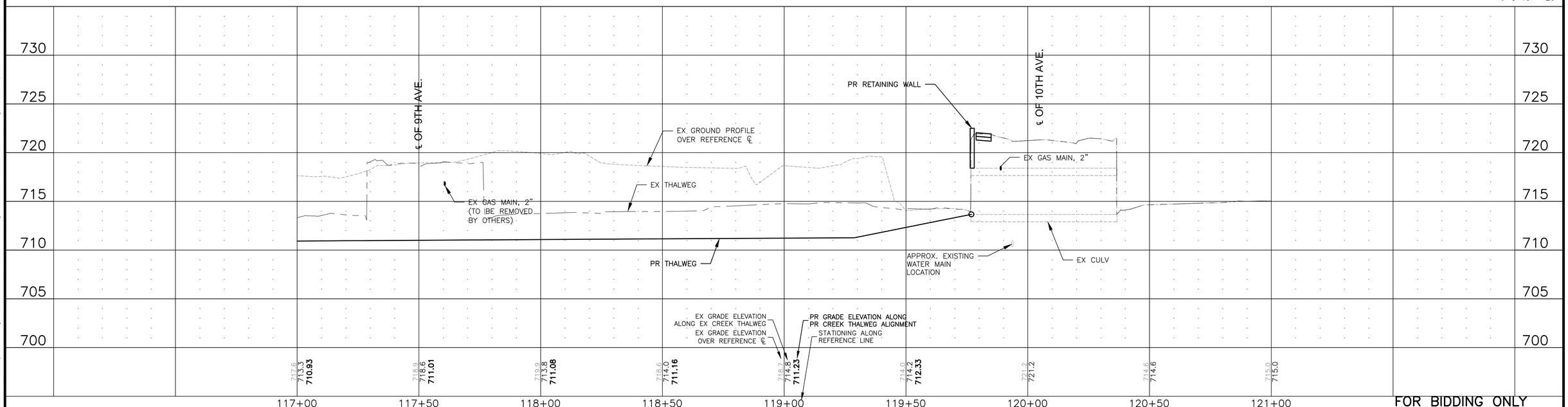
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE – 7TH AVE CREEK
STA 111+50 TO 117+00

SHEET NO.
29

Xrefs: xgl–1–dh01; 170818–xv–survey; xc–1–dgn; xc–1–surf; 170818–xc–drainage; 170818–xc–utilities; xc–1–dgn; xc–01–profviews 7th Ave Creek; xc–1–row; xgl–1–dh20–25–Grid; 170818–xc–removals





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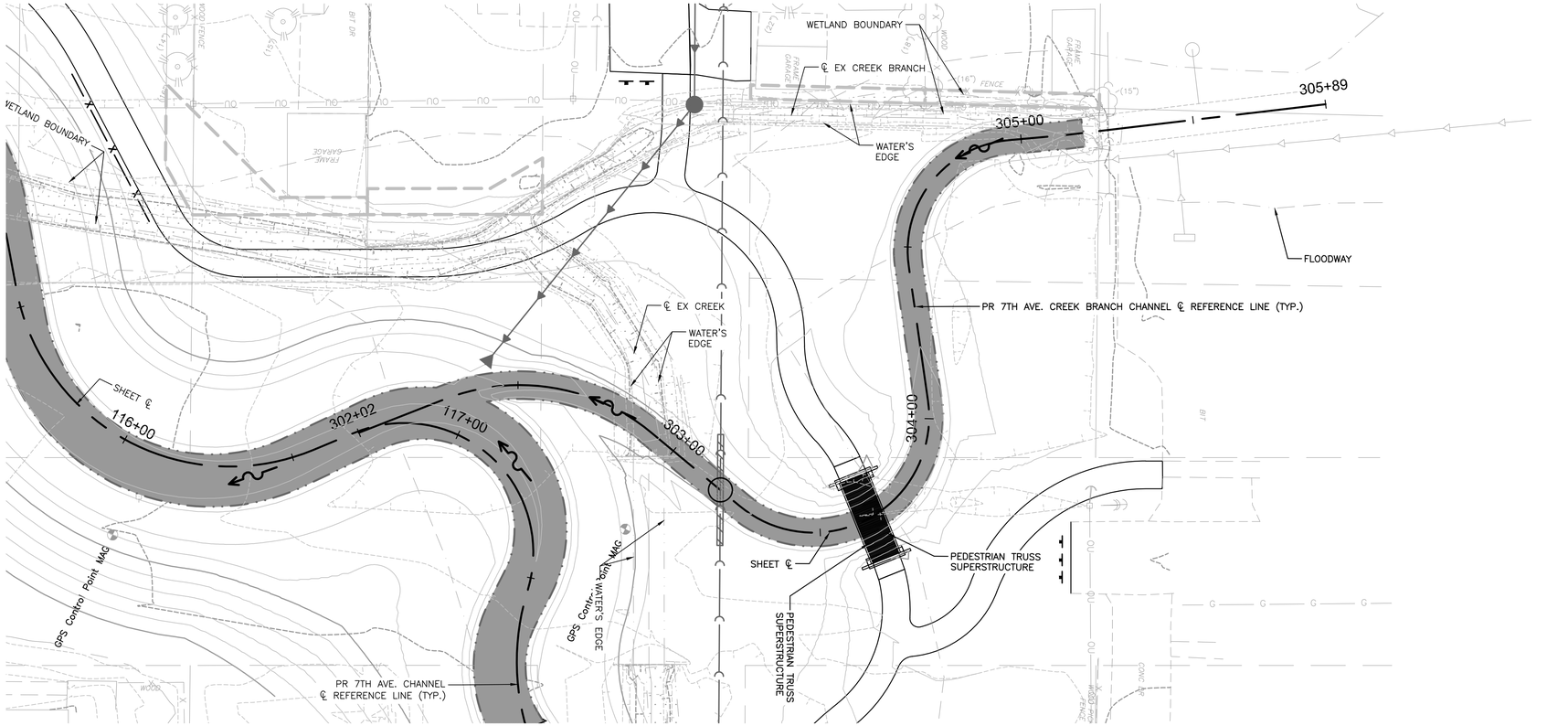
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS - PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE - 7TH AVE CREEK
STA 117+00 TO 121+03

SHEET NO. 30

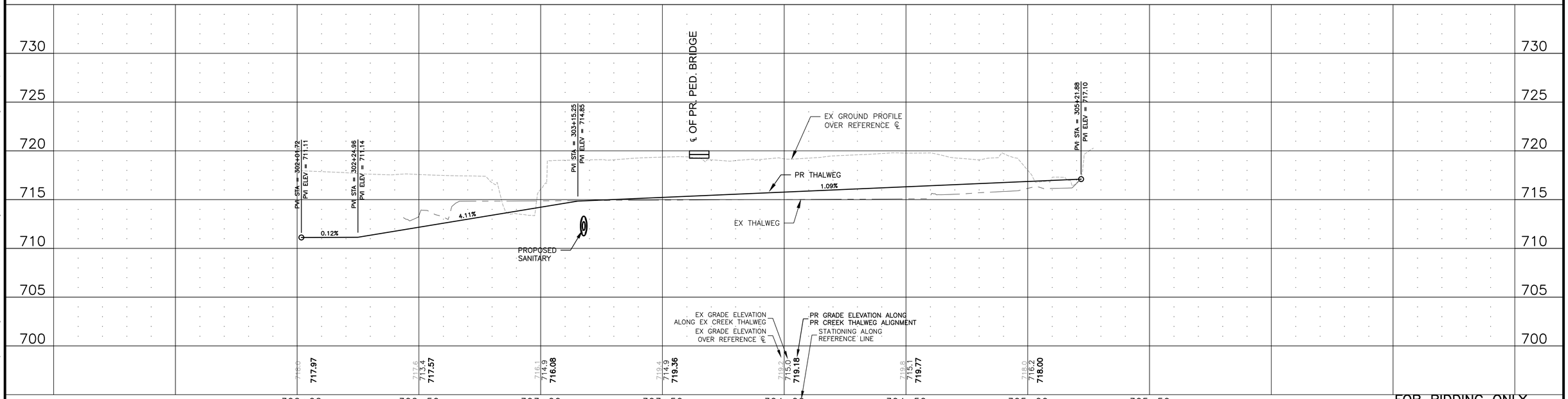
Xrefs: xg1-1-dh01; 170818-xv-survey; xc-1-olgn; xc-1-surf; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-01-profviews 7th Ave Creek; xc-1-row; xg1-1-dh20-25-Grid; 170818-xc-removals



LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)
- XXXXX INDICATES UTILITY TAGS
- INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS

0 5 10 20



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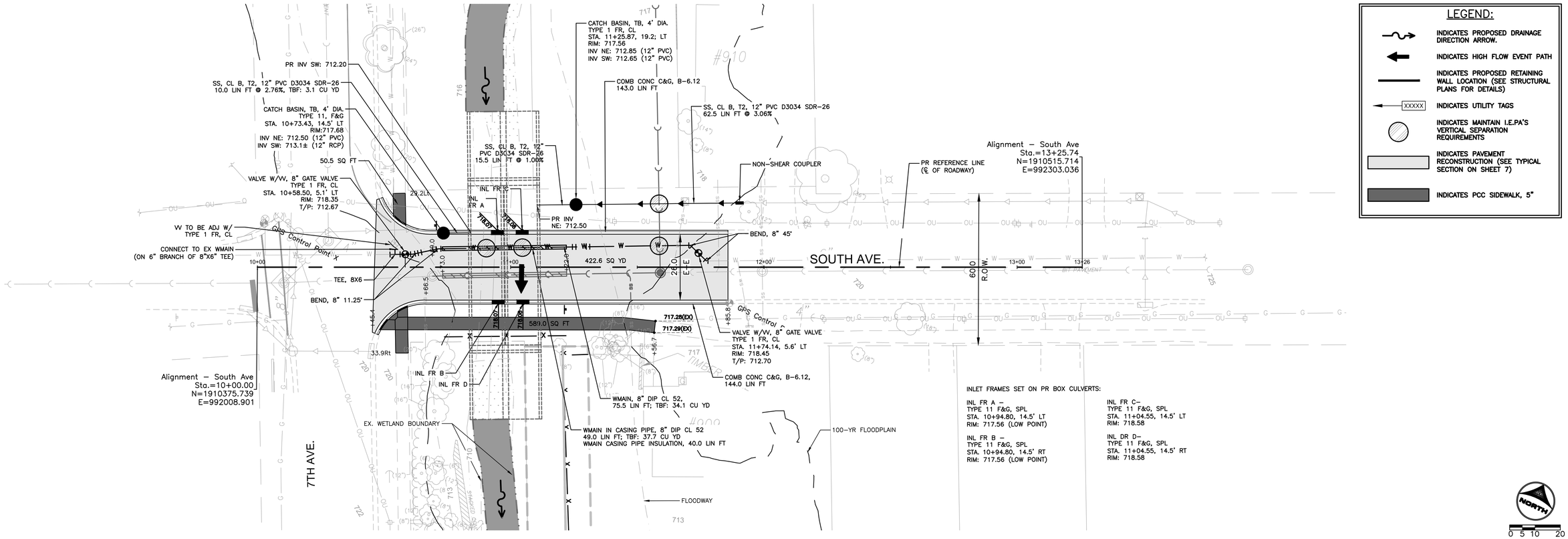
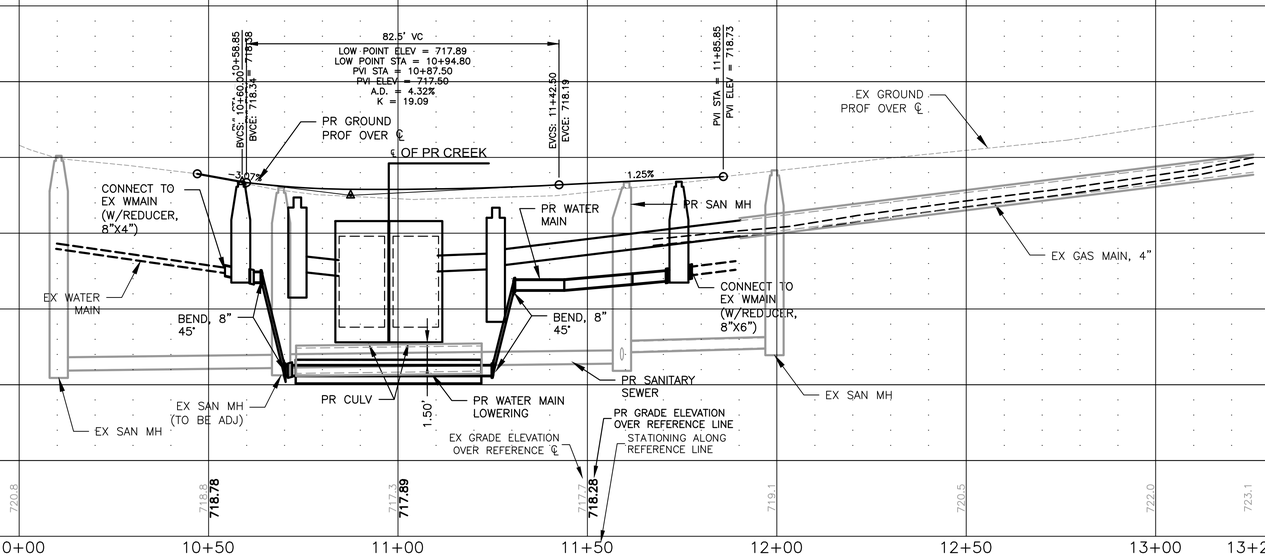
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE – 7TH AVE CREEK BRANCH

SHEET NO.
31

Xrefs: xgl-1-dh01; 170818-xv-survey; xc-1-algn; xc-1-surf; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-01-profviews 7th Ave Creek; xc-1-row; xgl-1-dh20-25-Grid; 170818-xc-removals





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CAD FILE:	J:\2017\170818\CAD\Dwgs\C\32-34 PLAN & PROFILE – ROADWAYS.dwg
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JOB NUMBER:	170818

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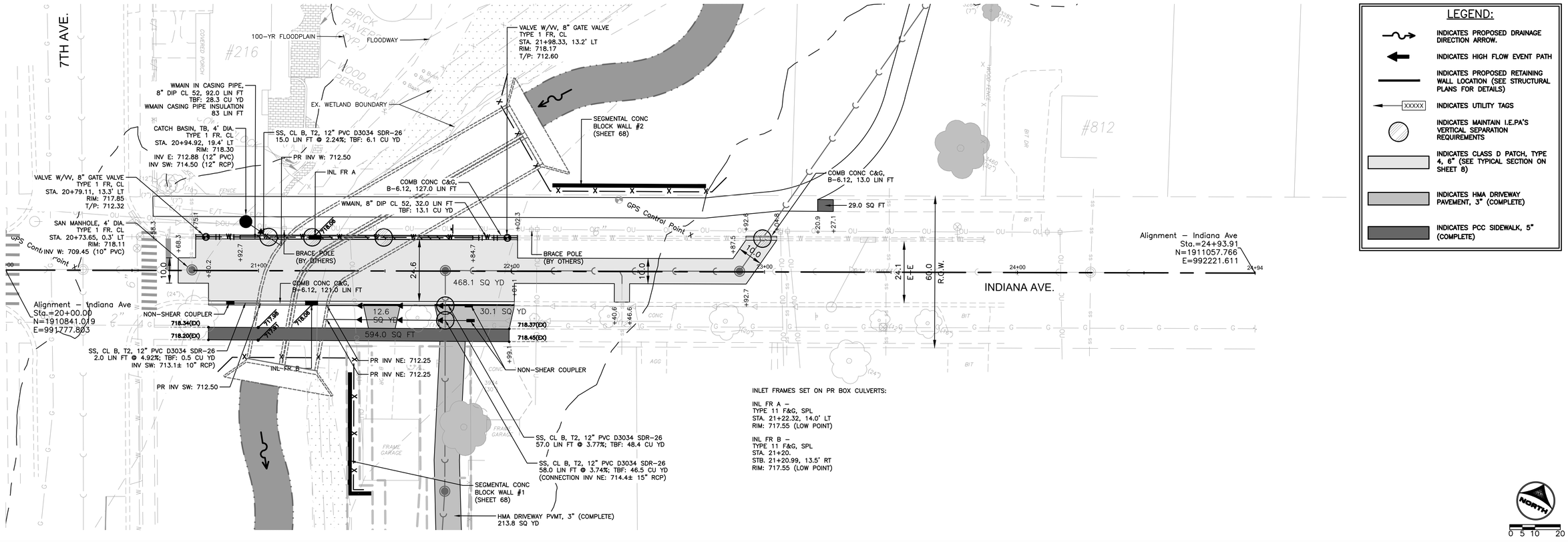
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE – SOUTH AVE

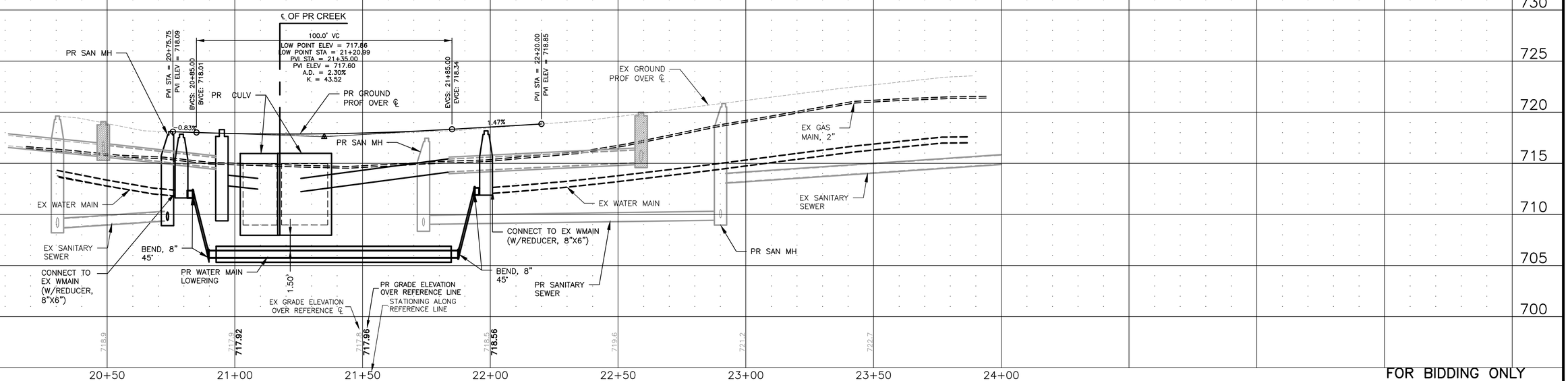
SHEET NO.
32



INLET FRAMES SET ON PR BOX CULVERTS:

INL FR A –
TYPE 11 F&G, SPL
STA. 21+22.32, 14.0' LT
RIM: 717.55 (LOW POINT)

INL FR B –
TYPE 11 F&G, SPL
STA. 21+20.
STB. 21+20.99, 13.5' RT
RIM: 717.55 (LOW POINT)



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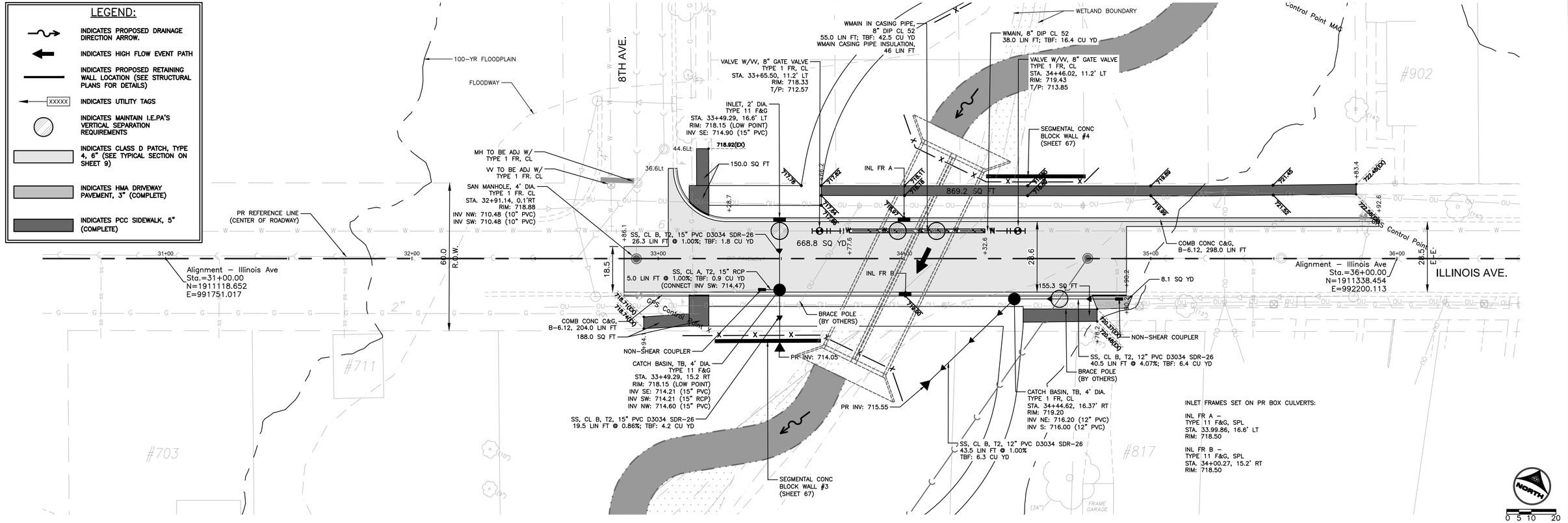
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

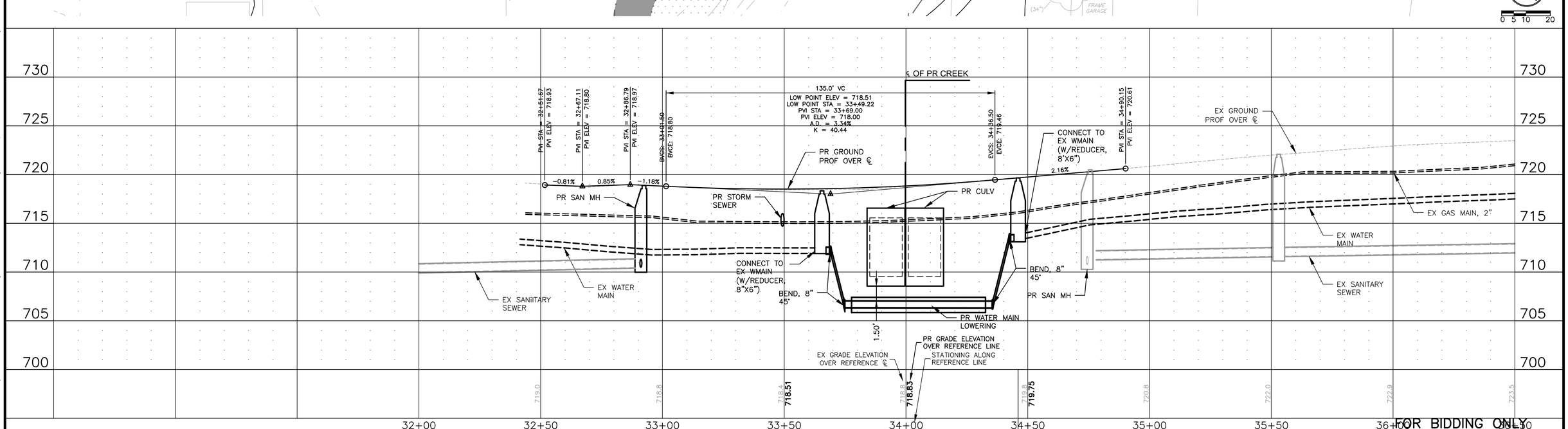
SHEETS
PLAN & PROFILE – INDIANA AVE

SHEET NO.
33

LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)
- XXXXX — INDICATES UTILITY TAGS
- INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS
- INDICATES CLASS D PATCH, TYPE 4, 6" (SEE TYPICAL SECTION ON SHEET 9)
- INDICATES HMA DRIVEWAY PAVEMENT, 3" (COMPLETE)
- INDICATES PCC SIDEWALK, 5" (COMPLETE)





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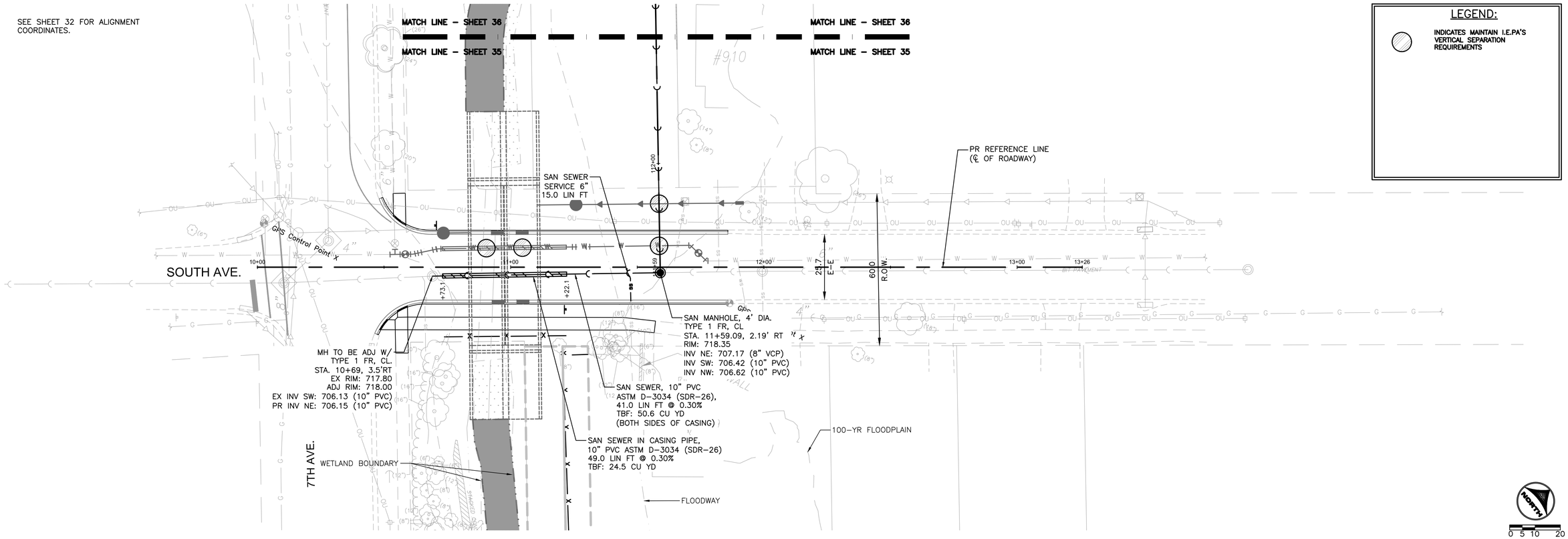
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE – ILLINOIS AVE

SHEET NO.
34

Xrefs: xgl-1-dh01; 170818-xv-survey; xc-1-surf; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-03-profviews South Ave; xc-1-row; xgl-1-dh20-25-Grid; 170818-xc-removals; xc-05-profviews Illinois Ave; xc-04-profviews Indiana Ave

SEE SHEET 32 FOR ALIGNMENT COORDINATES.

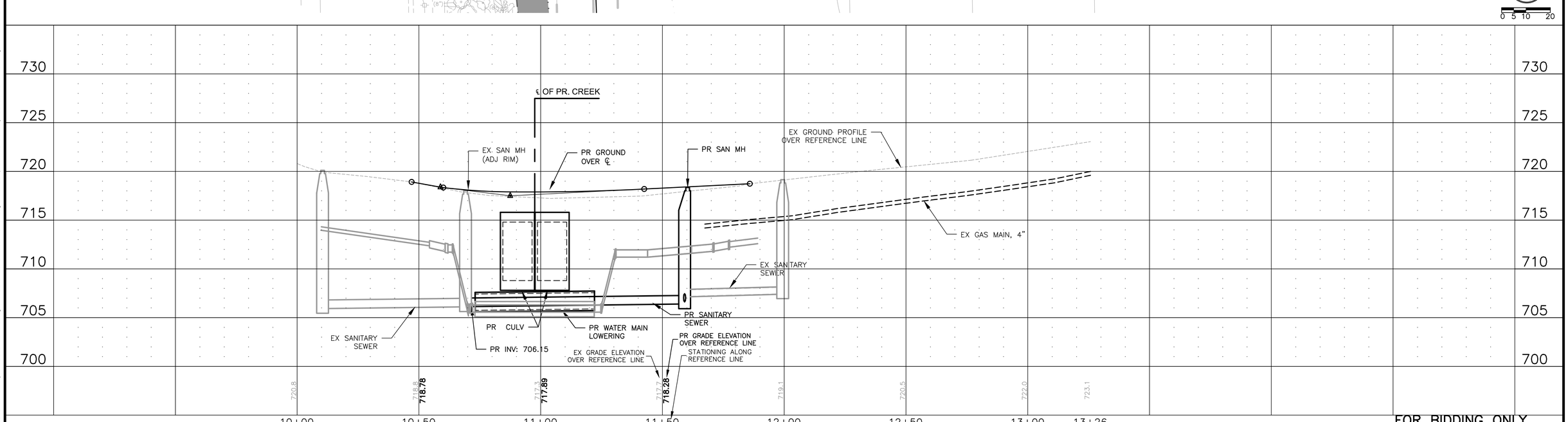


LEGEND:

INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS

NORTH

0 5 10 20



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FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE – SANITARY SEWER SOUTH AVE

SHEET NO.
35

Xrefs: xgl-1-dh01; 170818-xv-survey; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-08-profviews Sanitary Sewer; xc-1-row; xgl-1-dh20-25-Grid; 170818-xc-removals; xc-06-profviews Walnut Ave; xc-07-profviews 10th Ave

MATCH LINE – SHEET 35

MATCH LINE – SHEET 36

MATCH LINE – SHEET 37

FLOODWAY

100-YR FLOODPLAIN

PROPOSED REFERENCE LINE

Proposed Sanitary Sewer
Sta.=111+59.09
N=1910444.084
E=992152.517

SAN SEWER, 10" PVC
ASTM D-3034 (SDR-26),
225.0 LIN FT @ 0.35%
TBF: 22.6 CU YD

Proposed Sanitary Sewer
Sta.=113+81.90
N=1910843.554
E=992053.244

DRILLING PIT
(40'X15'
MAX. DIMENSIONS)

SAN MANHOLE, 4' DIA.
TYPE 1 FR, CL
STA. 113+81.90, 0.00' RT
RIM: 717.73
INV NW: 707.60 (10" PVC)
INV SE: 707.40 (10" PVC)

SAN SEWER SERVICE 6"
20 LIN FT

RECEIVING PIT
(15'X25'
MAX. DIMENSIONS)

SAN SEWER, 10" PVC
ASTM D-3034 (SDR-26),
87.2 LIN FT @ 0.35%
TBF: 88.0 CU YD

Proposed Sanitary Sewer
Sta.=115+93.66
N=1910839.170
E=991972.137

SAN SEWER, 12" HDPE
HORIZONTALLY DIRECTIONALLY DRILLED,
211.8 LIN FT @ 0.35%

SAN MANHOLE, 4' DIA.
TYPE 1 FR, CL
STA. 115+93.66, 0.00' RT
RIM: 717.66
INV NW: 708.54 (10" PVC)
INV SE: 708.34 (10" PVC)

GPS Control Point X

LEGEND:

INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS

NORTH

0 5 10 20

PR GROUND OVER ℄

PR SAN MH

EX GROUND PROF OVER ℄

PR SAN MH

PR GROUND OVER ℄

PR SAN MH

PR WATER MAIN

4.10'

PR SANITARY SEWER

PR SANITARY SEWER (HORIZONAL DIRECTIONAL DRILLED)

PR SANITARY SEWER

EX GRADE ELEVATION OVER REFERENCE LINE

STATIONING ALONG REFERENCE LINE

717.9 **718.39** 717.7 717.6 716.0 717.0 718.0 718.0 717.6 717.1 717.7 718.3 718.1 **718.18**

730 725 720 715 710 705 700

111+59 112+00 112+50 113+00 113+50 114+00 114+50 115+00 115+50 116+00 116+50 117+01

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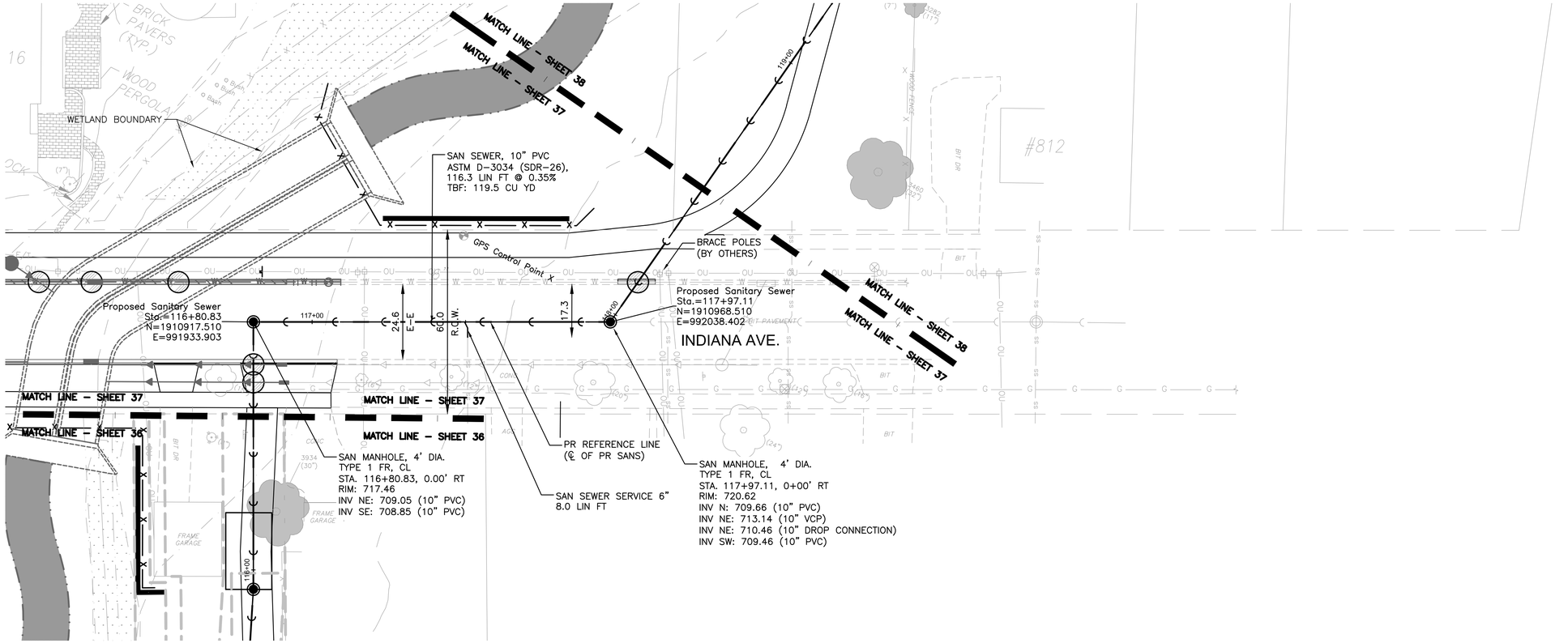
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE – SANITARY SEWER SOUTH AVE TO INDIANA AVE

SHEET NO.
36

Xrefs: xgl-1-dh01; 170818-xv-survey; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-08-profviews Sanitary Sewer; xc-1-row; xgl-1-dh20-25-Grid; 170818-xc-removals; xc-06-profviews Walnut Ave; xc-07-profviews 10th Ave

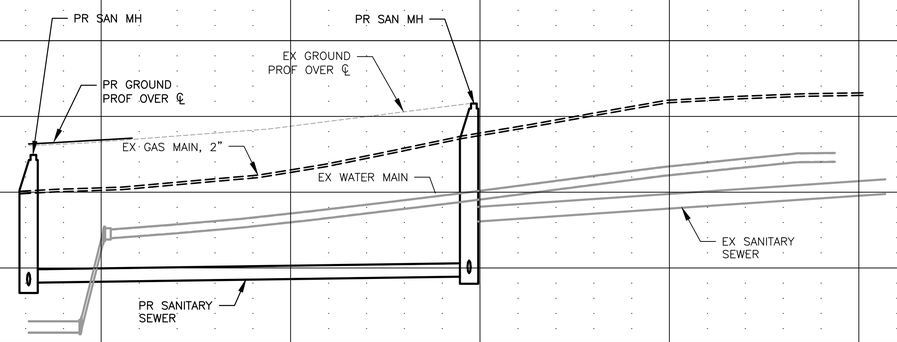


LEGEND:

INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS

NORTH

0 5 10 20



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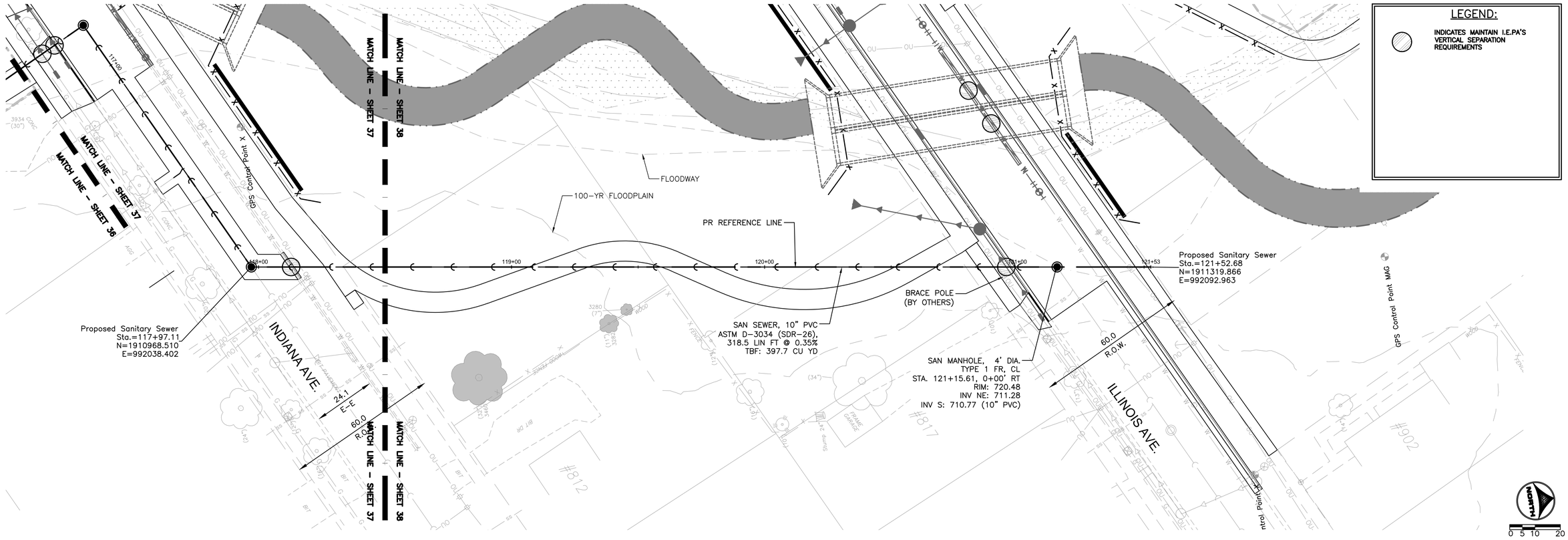
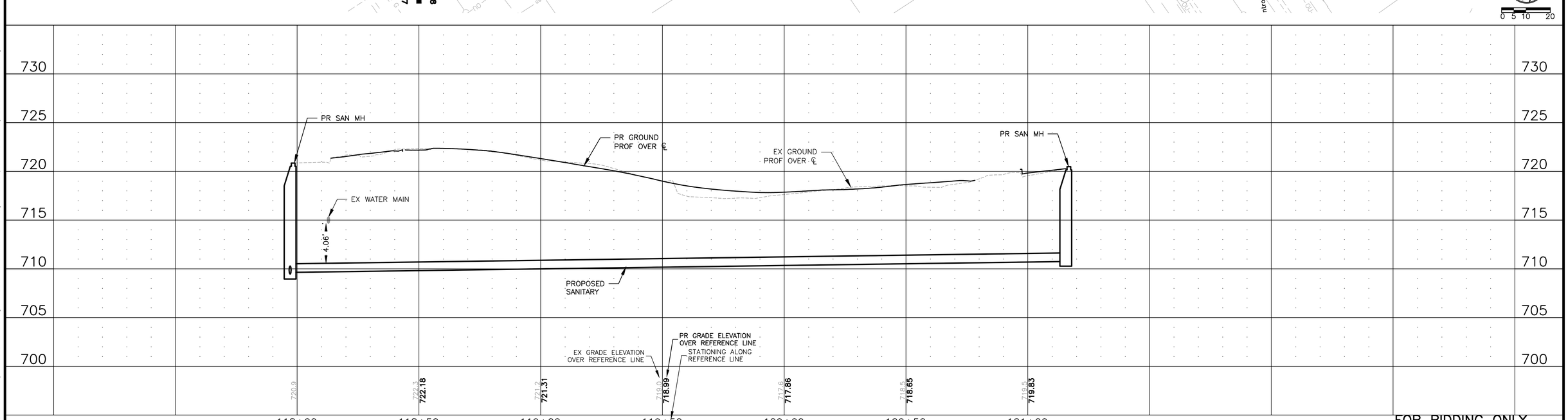
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE – SANITARY SEWER INDIANA AVE

SHEET NO.
37

Xrefs: xgl-1-dh01; 170818-xv-survey; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-08-profviews Sanitary Sewer; xc-1-row; xgl-1-dh20-25-Grid; 170818-xc-removals; xc-06-profviews Walnut Ave; xc-07-profviews 10th Ave





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JOB DATE:	OCTOBER 28, 2020
JOB NUMBER:	170818

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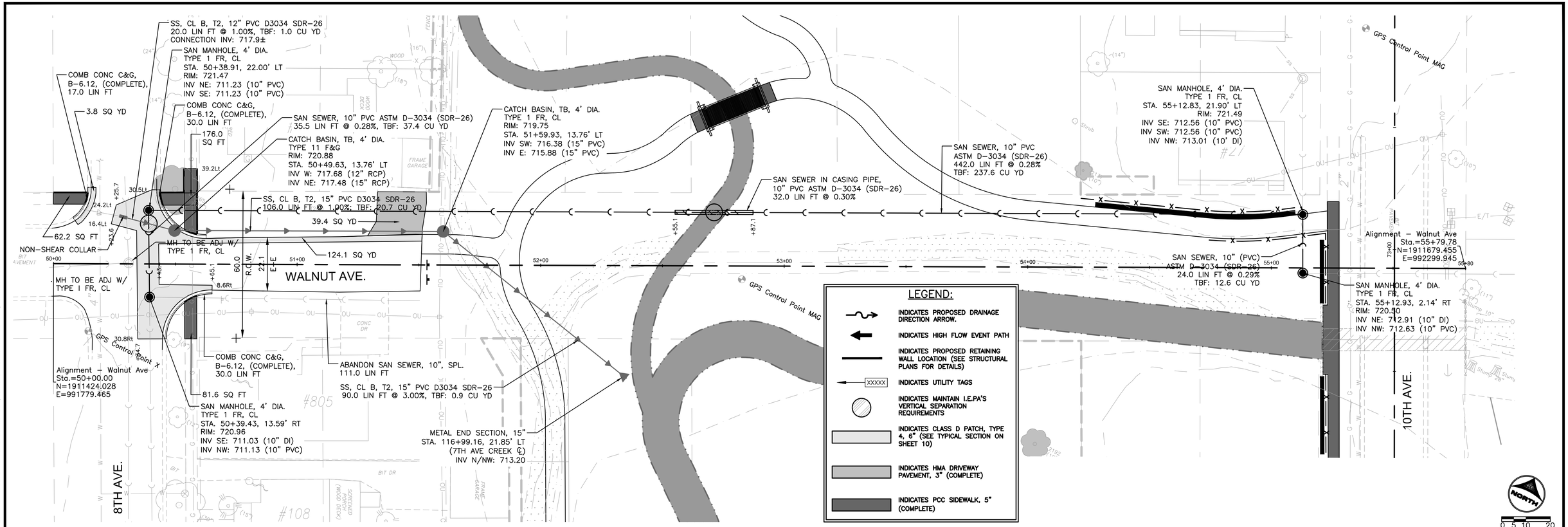
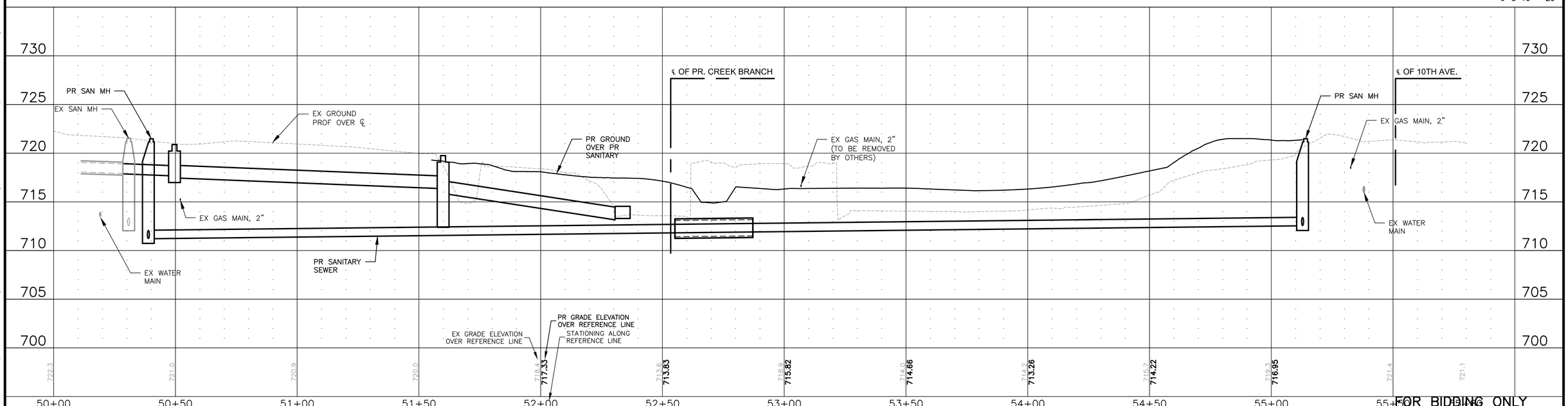
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE – SANITARY SEWER INDIANA AVE TO ILLINOIS AVE

SHEET NO.
38

Xrefs: xgl-1-dh01; 170818-xv-survey; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-08-profviews Sanitary Sewer; xc-1-row; xgl-1-dh20-25-Grid; 170818-xc-removals; xc-06-profviews Walnut Ave; xc-07-profviews 10th Ave





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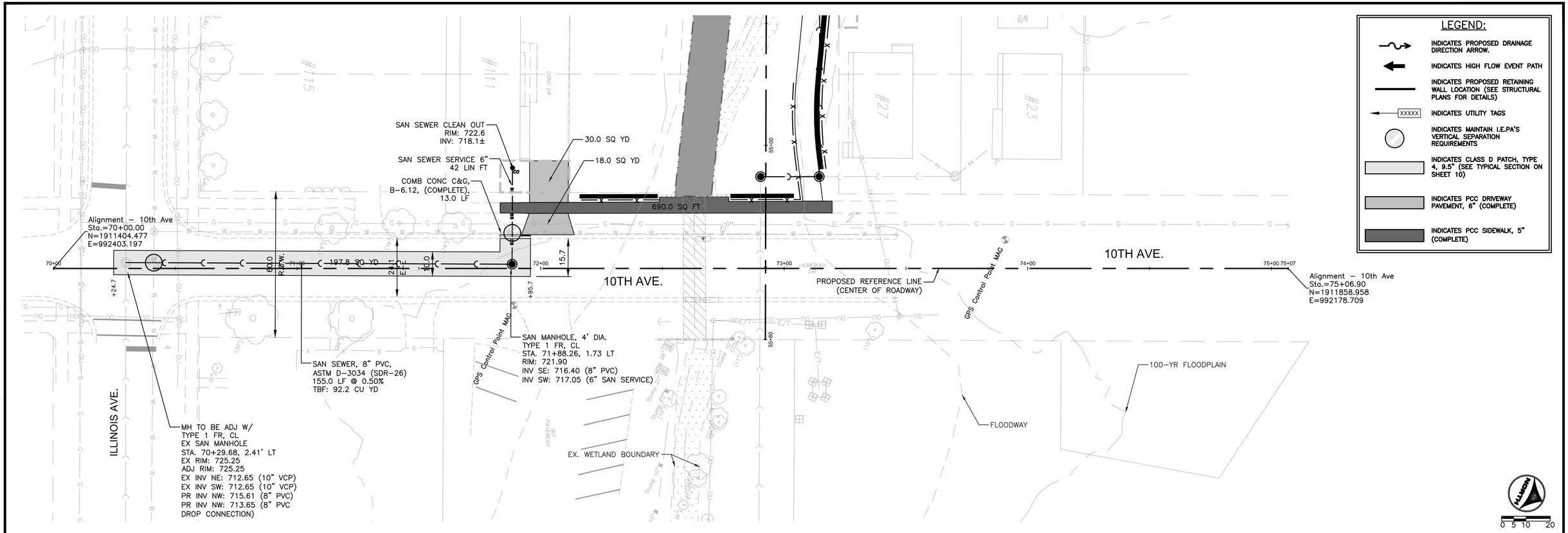
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE – SANITARY SEWER WALNUT AVE

SHEET NO.
39

Xrefs: xgl-1-dh01; 170818-xv-survey; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-08-profviews Sanitary Sewer; xc-1-row; xgl-1-dh20-25-Grid; 170818-xc-removals; xc-06-profviews Walnut Ave; xc-07-profviews 10th Ave



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APPROVED: DVM JOB NUMBER: 170818
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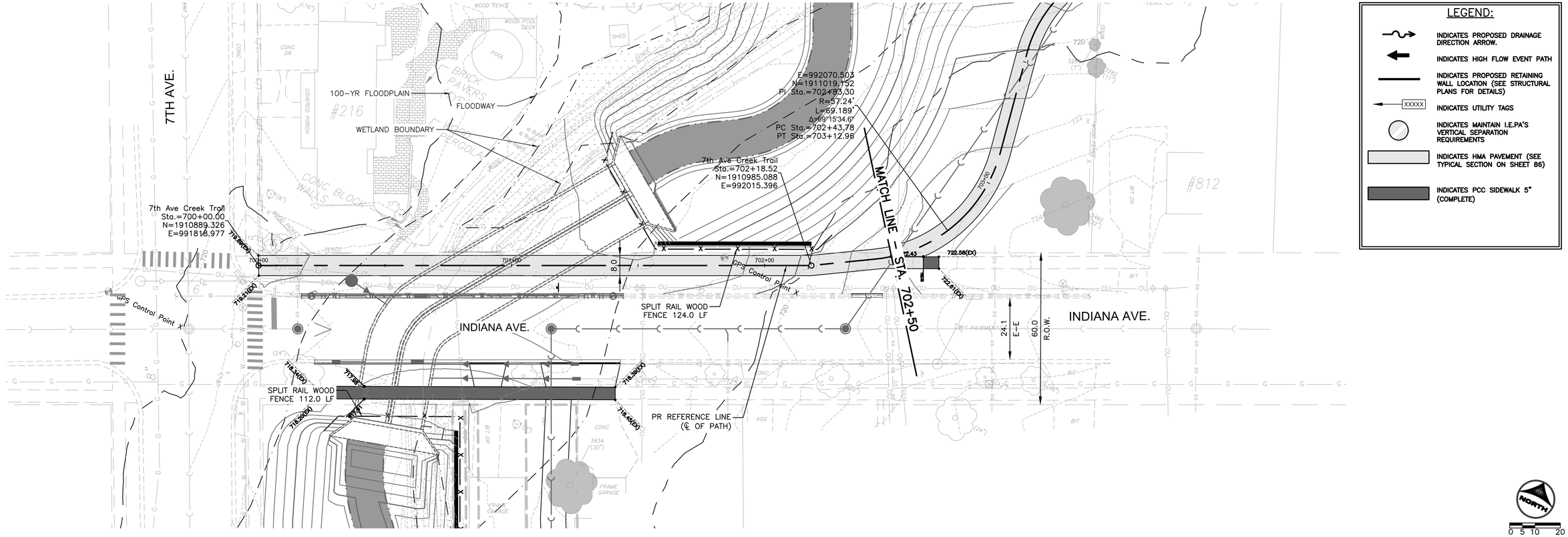
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE – SANITARY SEWER 10TH AVE

SHEET NO.
40

Xrefs: xgl-1-dh01; 170818-xv-survey; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-08-profviews Sanitary Sewer; xc-1-row; xgl-1-dh20-25-Grid; 170818-xc-removals; xc-06-profviews Walnut Ave; xc-07-profviews 10th Ave



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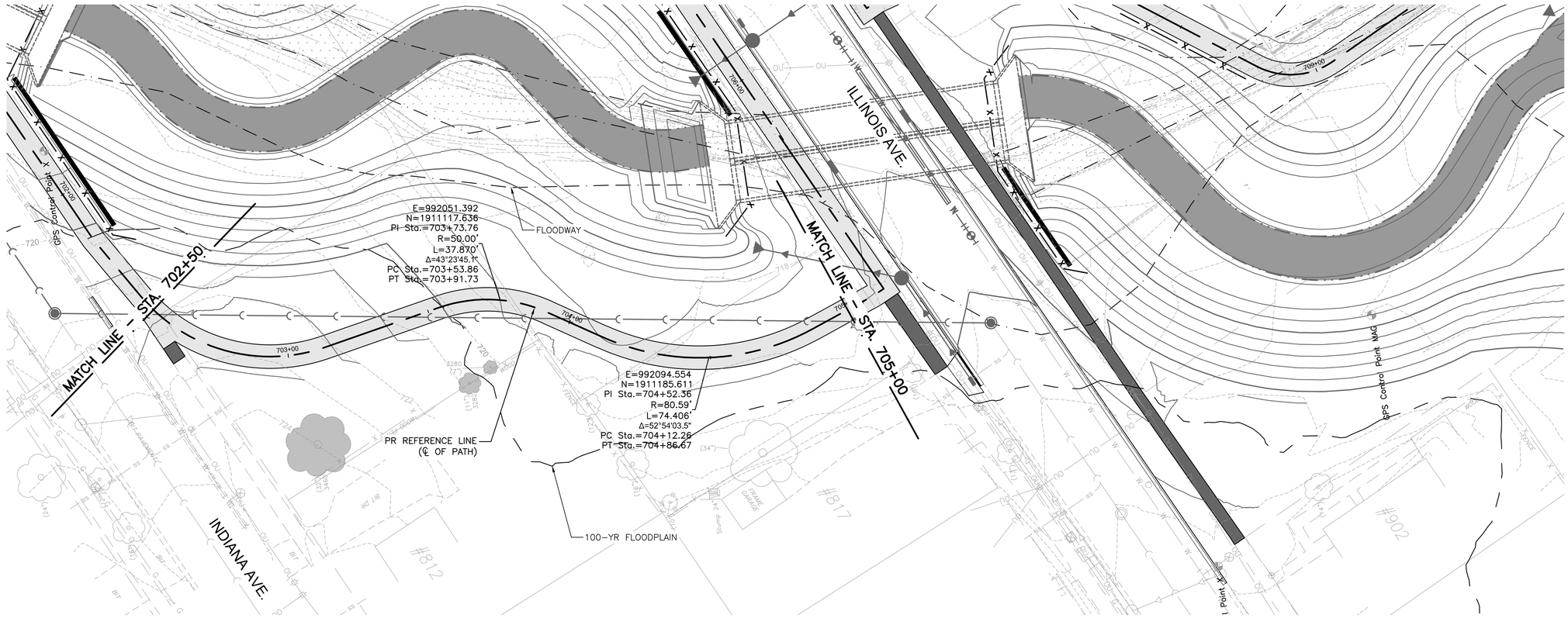
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE – MULTI-USE PATH STA 700+00 TO 702+50

SHEET NO.
41

Xrefs: xc-1-dsgn; 170818-xv-survey; xgl-1-dh01; xc-02-proviews Path; 170818-xc-drainage; 170818-xc-utilities; xc-1-surf; xc-1-row; xgl-1-dh20-25-Grid; 170818-xv-removals

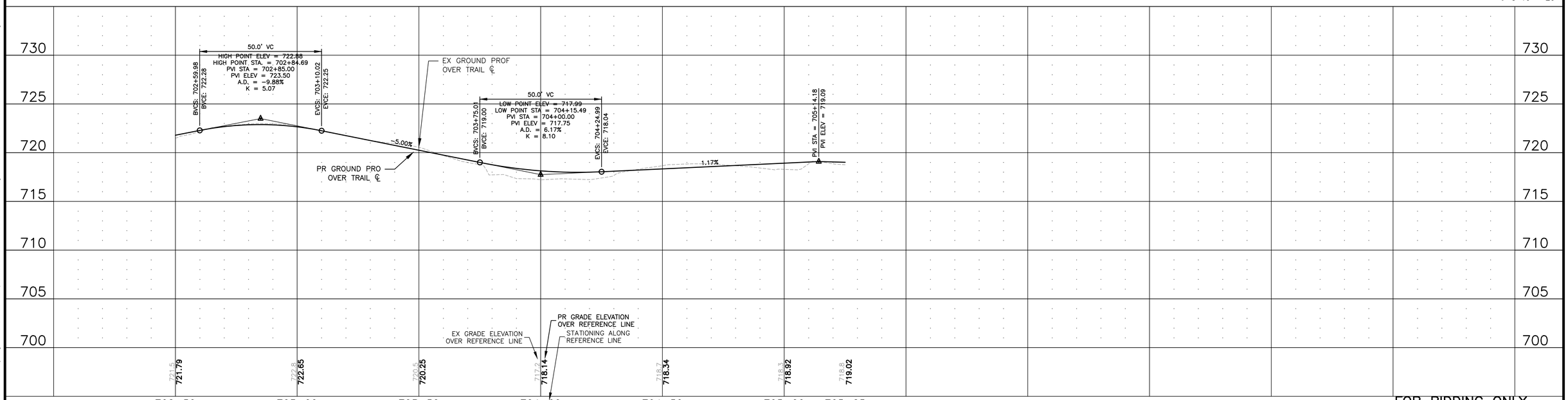


LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)
- XXXXX — INDICATES UTILITY TAGS
- INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS
- INDICATES HMA PAVEMENT (SEE TYPICAL SECTION ON SHEET 86)
- INDICATES PCC SIDEWALK 5" (COMPLETE)

NORTH

0 5 10 20



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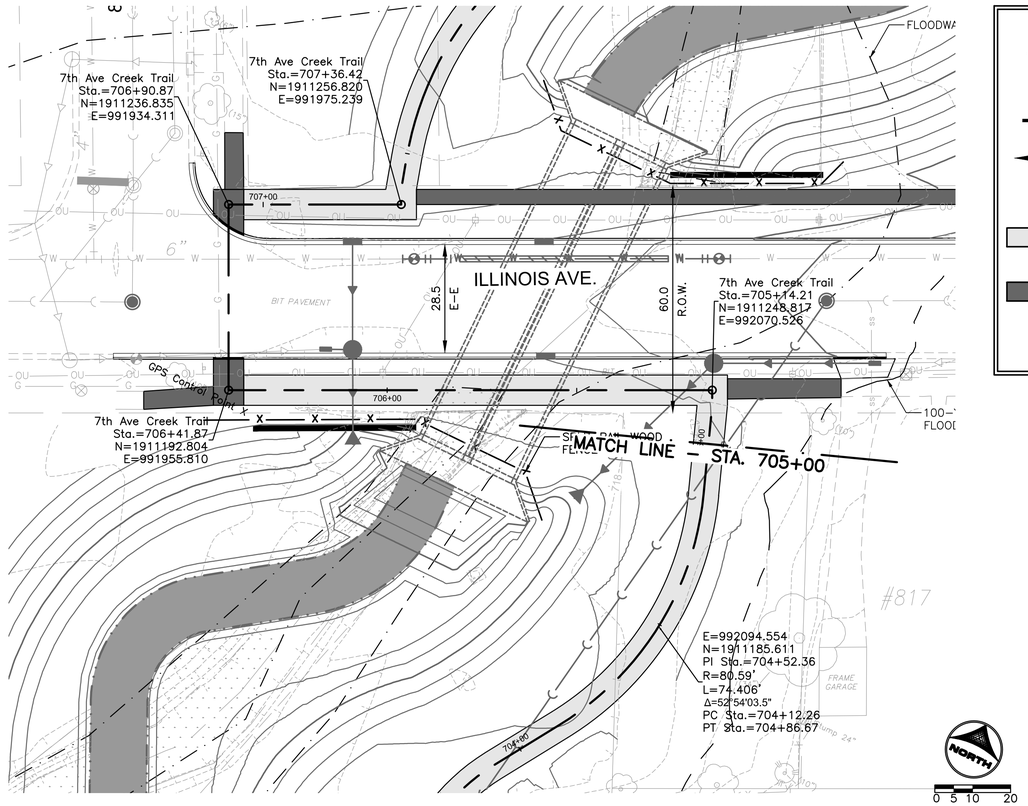
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

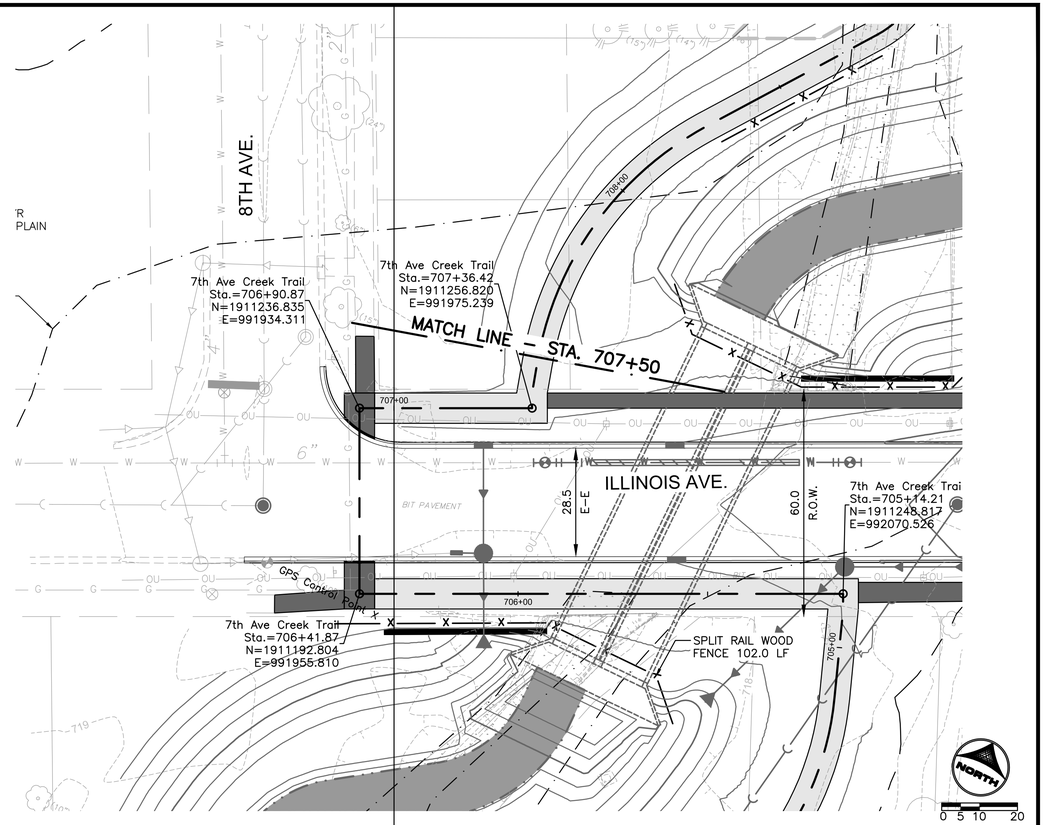
SHEETS
PLAN & PROFILE – MULTI-USE PATH STA 702+50 TO 705+00

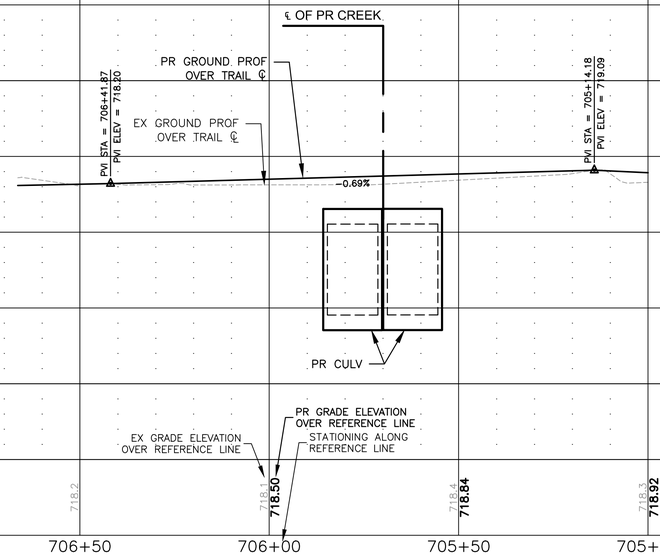
SHEET NO.
42

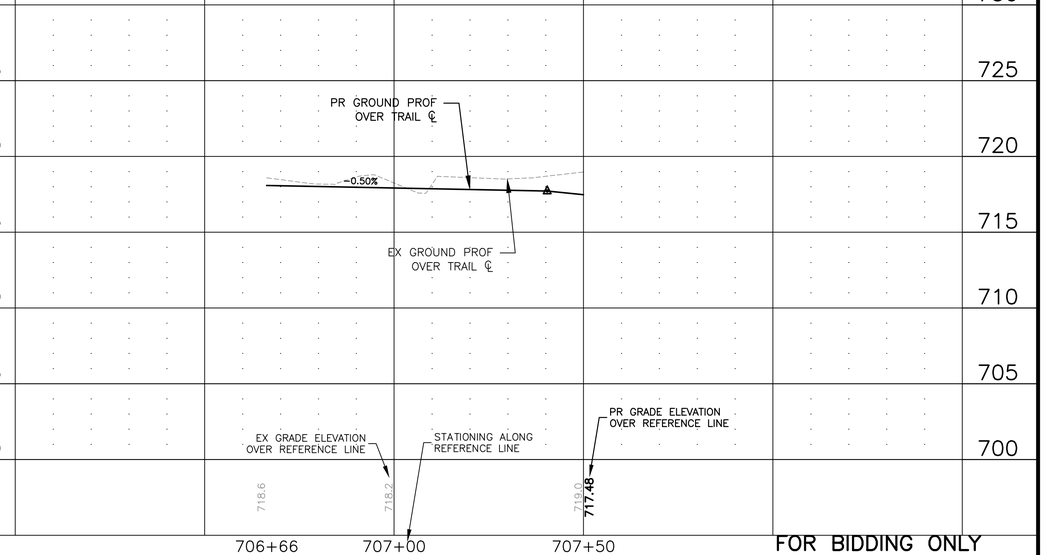


LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)
- XXXXX — INDICATES UTILITY TAGS
- INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS
- INDICATES HMA PAVEMENT (SEE TYPICAL SECTION ON SHEET 86)
- INDICATES PCC SIDEWALK 5" (COMPLETE)







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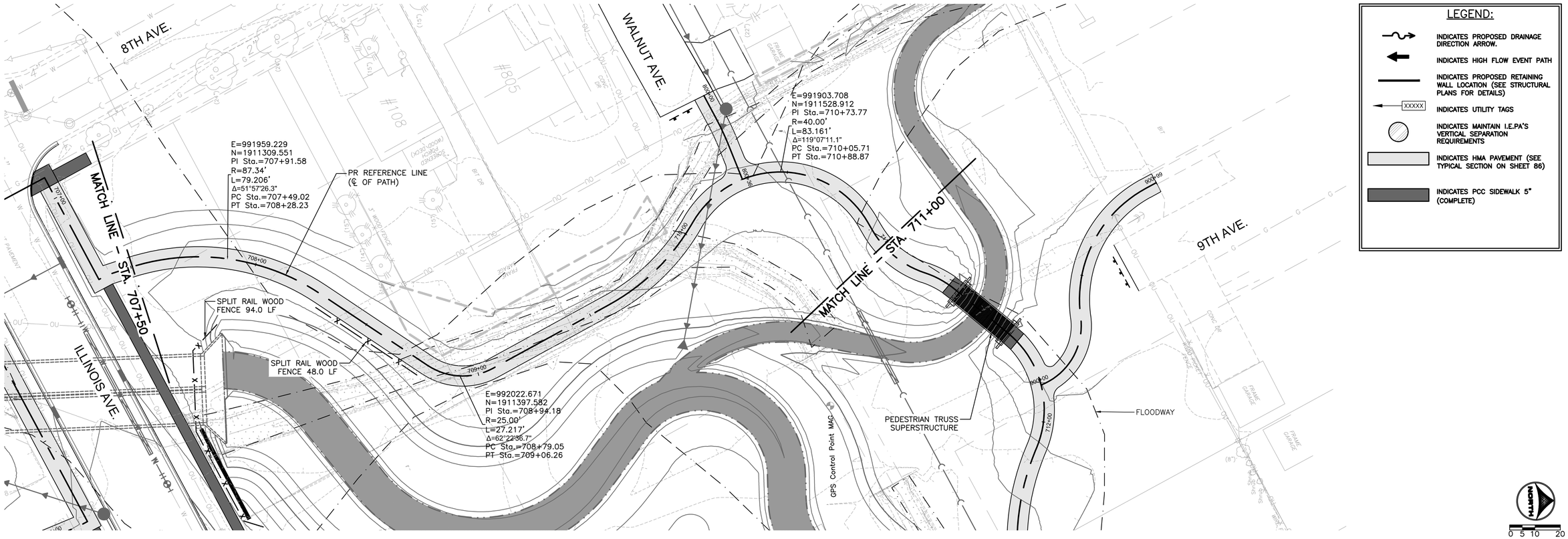
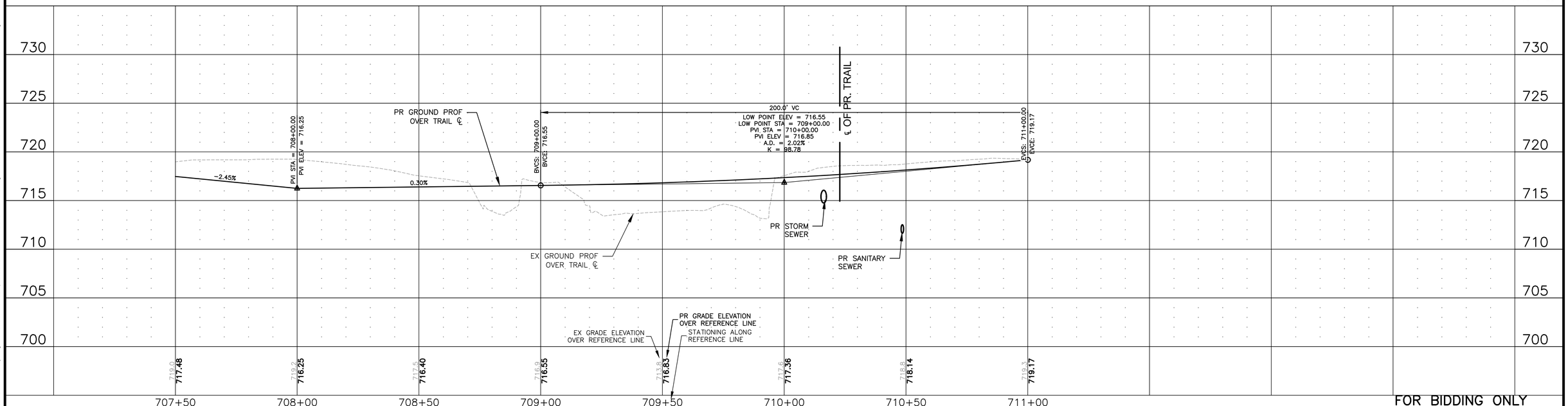
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS - PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE - MULTI-USE PATH STA 705+00 TO 707+50

SHEET NO. 43





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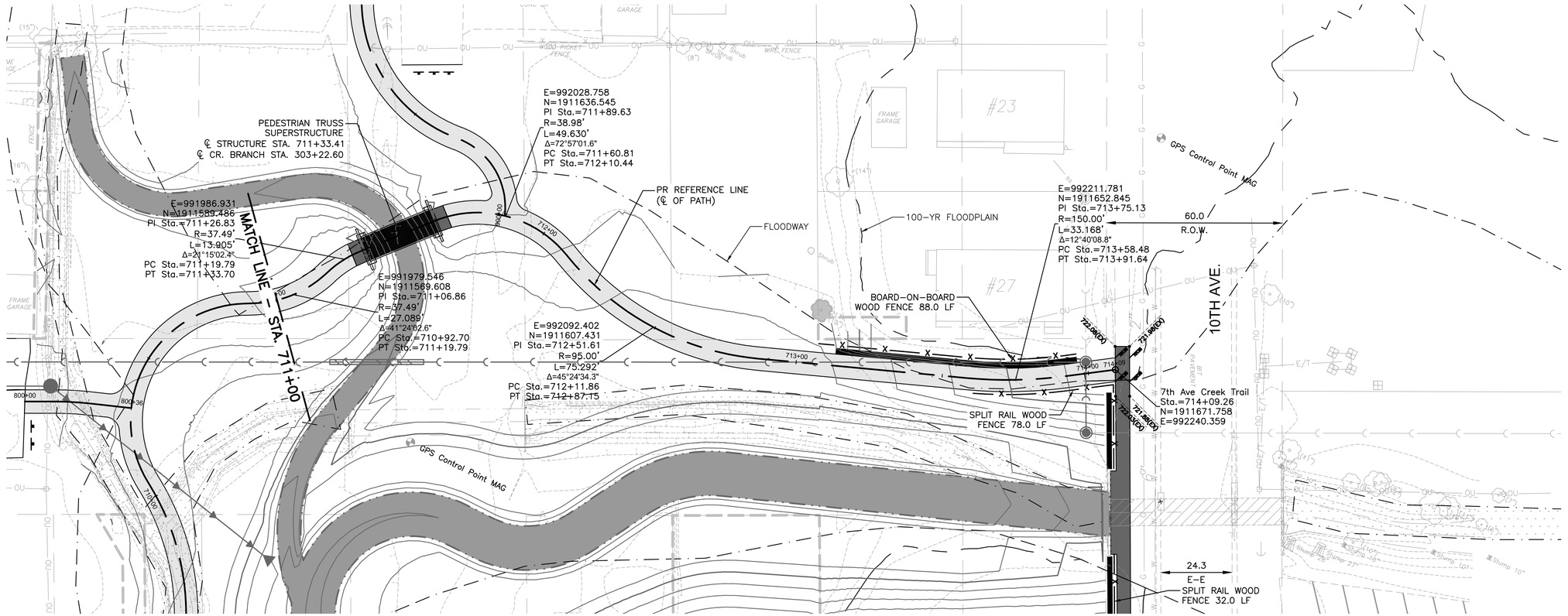
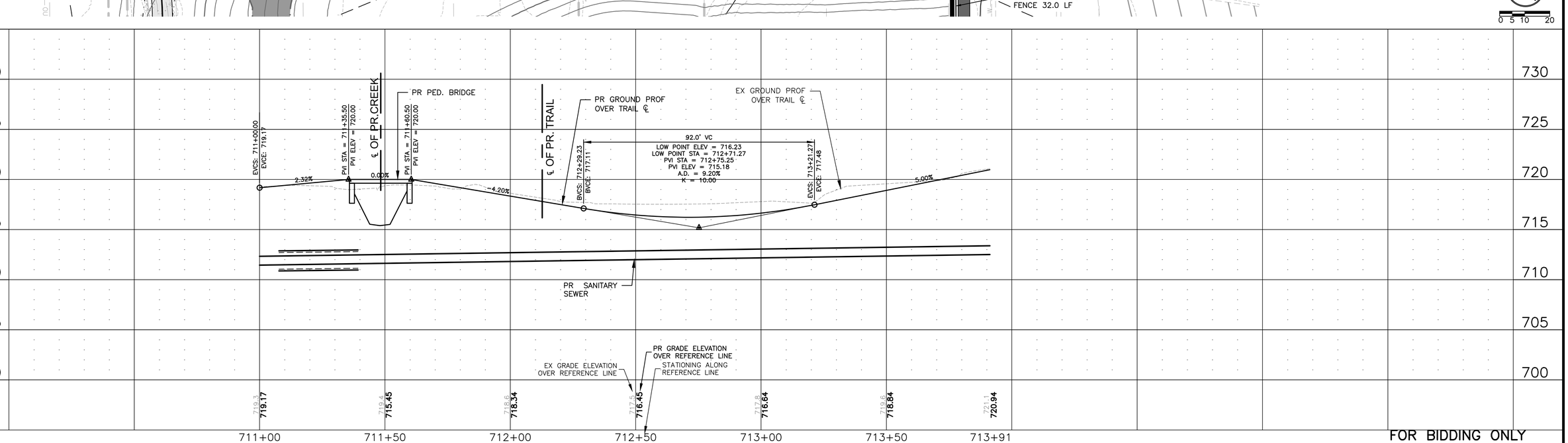
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
PLAN & PROFILE – MULTI-USE PATH STA 707+50 TO 711+00

SHEET NO.
44

Xrefs: xc-1-dsgn; 170818-xv-survey; xgl-1-dh01; xc-02-proviews Path; 170818-xc-drainage; 170818-xc-utilities; xc-1-surf; xc-1-row; xgl-1-dh20-25-Grid; 170818-xc-removals





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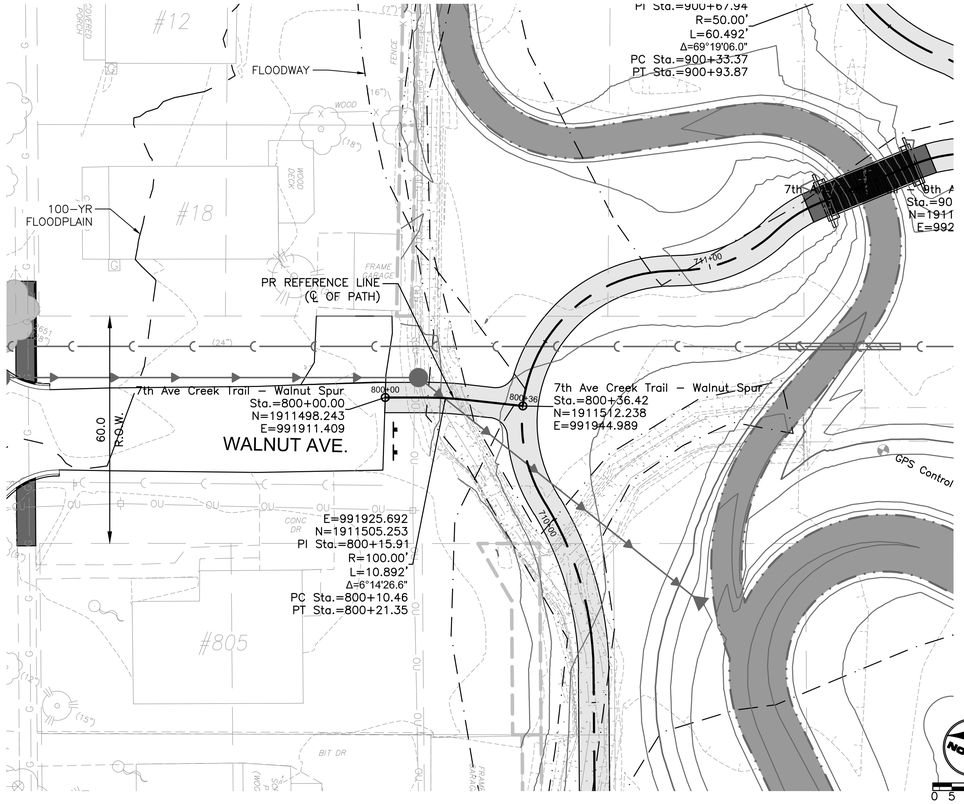
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

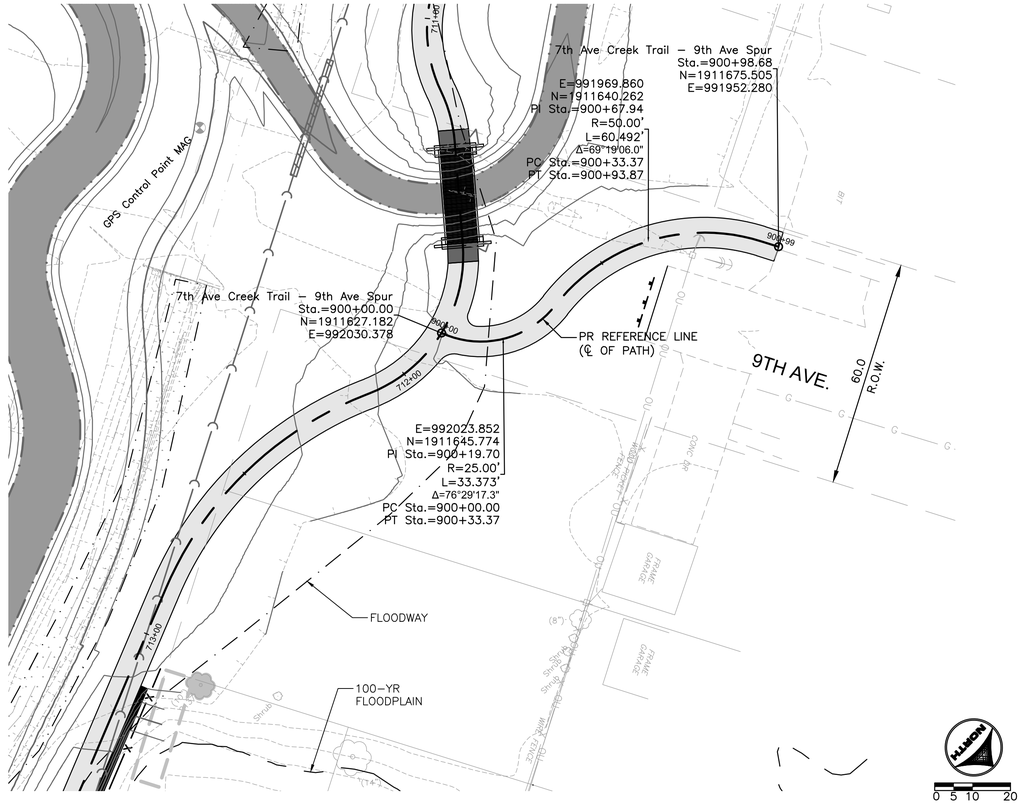
SHEETS
PLAN & PROFILE – MULTI-USE PATH STA 711+00 TO 713+91

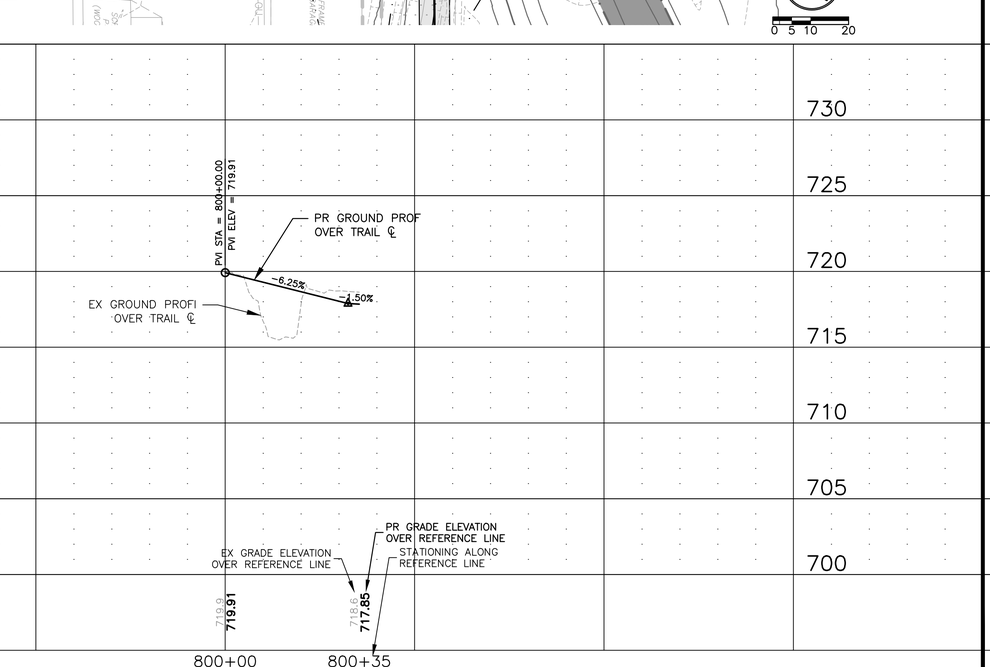
SHEET NO.
45

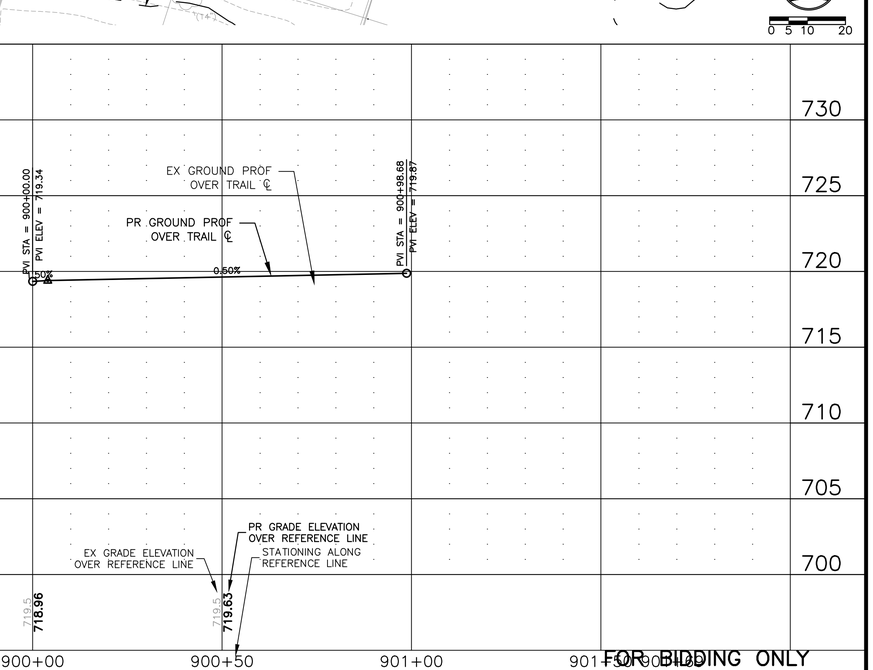


LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)
- XXXXX — INDICATES UTILITY TAGS
- INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS
- INDICATES HMA PAVEMENT (SEE TYPICAL SECTION ON SHEET 86)
- INDICATES PCC SIDEWALK 5" (COMPLETE)







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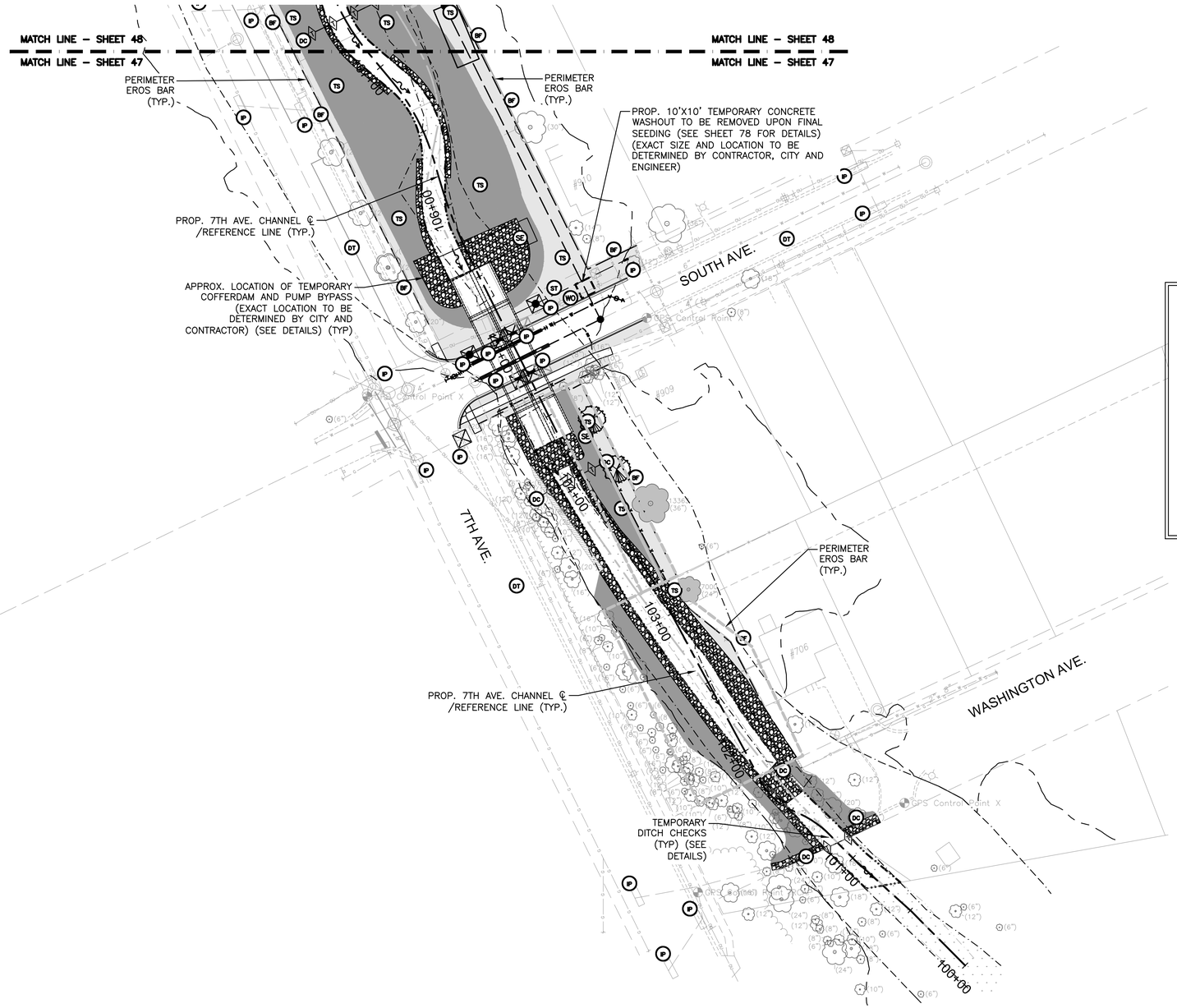
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

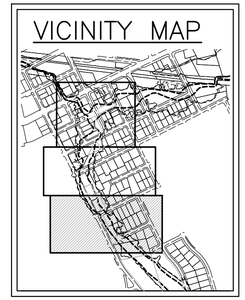
SHEETS
PLAN & PROFILE – MULTI-USE PATH
WALNUT & 9TH AVE SPURS

SHEET NO. 46

Xrefs: xc-1-dsgn; 170818-xv-survey; xgl-1-dh01; xc-02-proviews Path: 170818-xc-drainage; 170818-xc-utilities; xc-1-surf; xc-1-row; xgl-1-dh20-25-Grid; 170818-xv-removals



VICINITY MAP



LEGEND:

- INDICATES MULCH METHOD 2
- INDICATES EROSION CONTROL BLANKET
- INDICATES HEAVY DUTY EROSION CONTROL BLANKET
- INDICATES TREE TRUNK PROTECTION
- INDICATES EROSION CONTROL MEASURE (SEE SHEET 75 – 80 FOR EROSION CONTROL LEGEND / DETAILS)
- BF • PERIMETER EROSION BARRIER
- IP • INLET PROTECTION
- DC • TEMPORARY DITCH CHECKS

1 EROSION & SEDIMENT CONTROL PLAN

SCALE: 1" = 40'

NORTH

0 10 20 40

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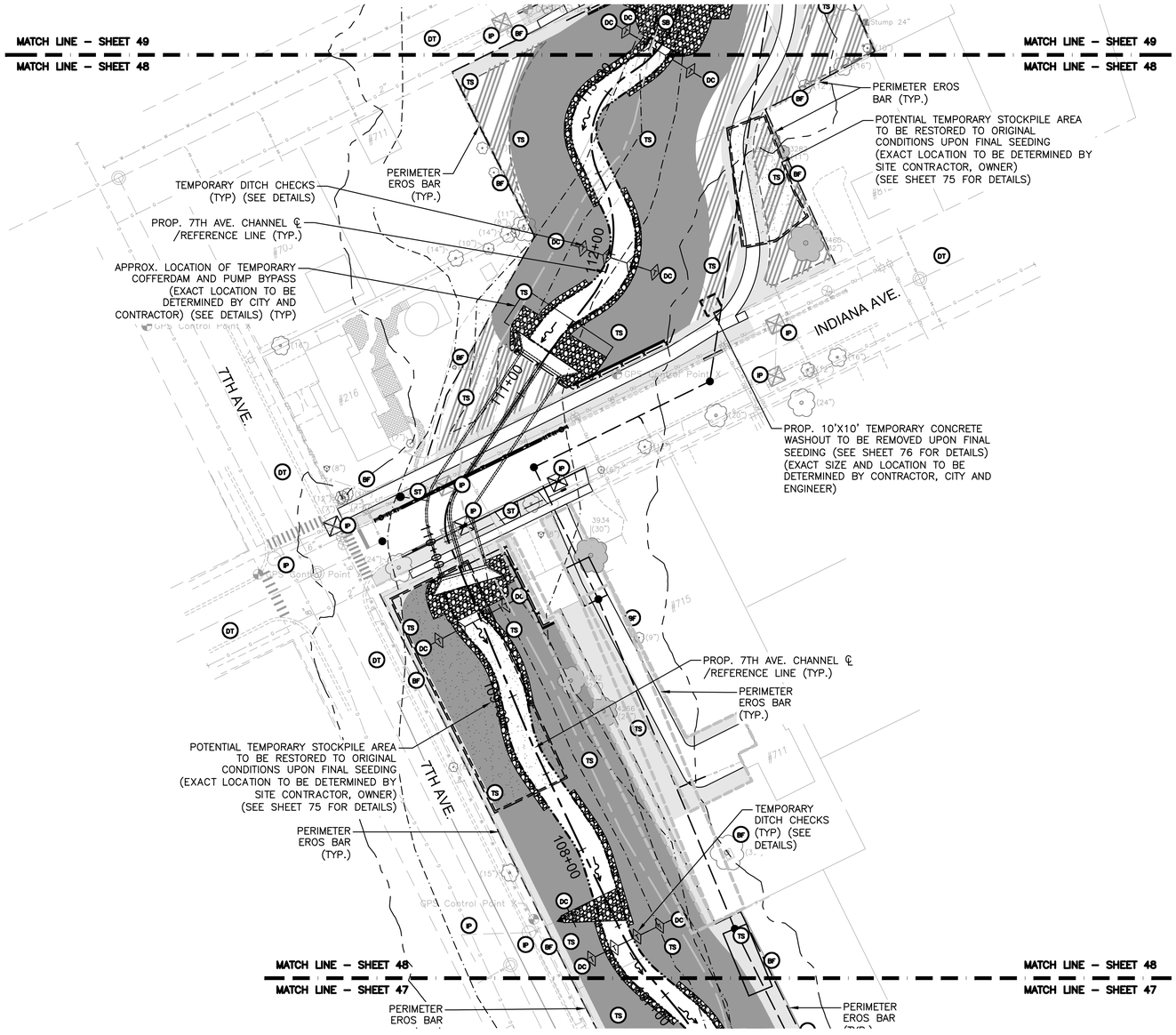
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
EROSION & SEDIMENT CONTROL PLAN – SOUTH AREA

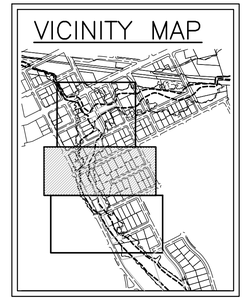
SHEET NO. 47

Xrefs: xgt-1-dh01; 170818-xv-survey; 170818-xc-drainage; 170818-xc-utilities; xc-1-align; xc-1-dsgn; xl-dsgn; 170818-xc-removals; xc-1-row



1 EROSION & SEDIMENT CONTROL PLAN
SCALE: 1" = 40'

VICINITY MAP



LEGEND:

- INDICATES MULCH METHOD 2
- INDICATES EROSION CONTROL BLANKET
- INDICATES HEAVY DUTY EROSION CONTROL BLANKET
- INDICATES TREE TRUNK PROTECTION
- INDICATES EROSION CONTROL MEASURE (SEE SHEET 75 – 80 FOR EROSION CONTROL LEGEND / DETAILS)
- BF • PERIMETER EROSION BARRIER
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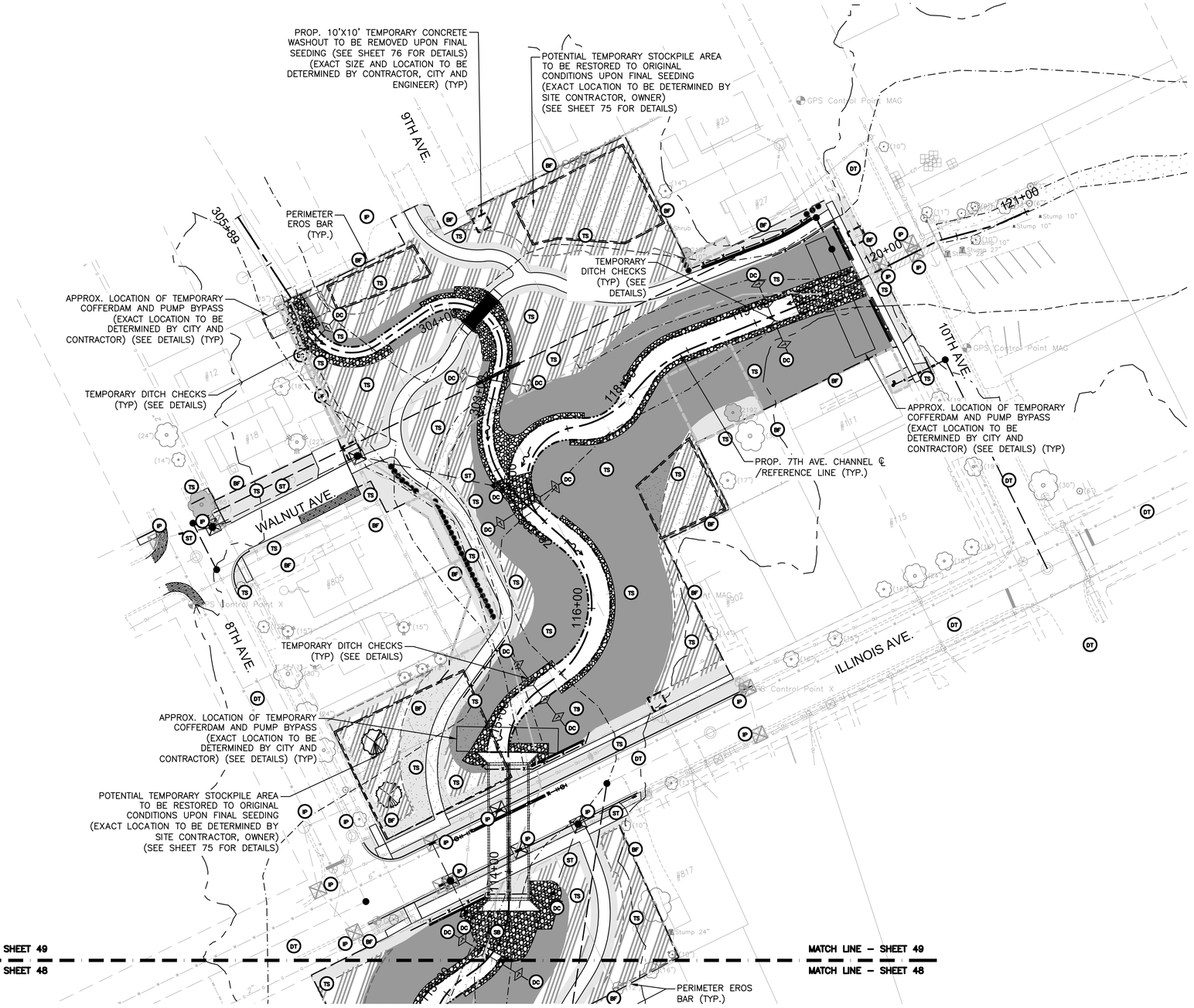
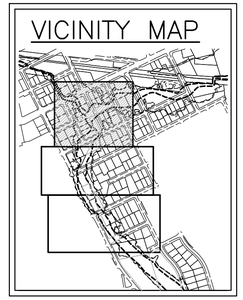
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
EROSION & SEDIMENT CONTROL PLAN – CENTRAL AREA

SHEET NO.
48



VICINITY MAP



LEGEND:

- INDICATES MULCH METHOD 2
- INDICATES EROSION CONTROL BLANKET
- INDICATES HEAVY DUTY EROSION CONTROL BLANKET
- INDICATES TREE TRUNK PROTECTION
- INDICATES EROSION CONTROL MEASURE (SEE SHEET 75 – 80 FOR EROSION CONTROL LEGEND / DETAILS)
- BF • PERIMETER EROSION BARRIER
- IP • INLET PROTECTION
- DC • TEMPORARY DITCH CHECKS

1 EROSION & SEDIMENT CONTROL PLAN

SCALE: 1" = 40'

NORTH

0 10 20 40

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DRAWN BY:	CTK	JOB DATE:	OCTOBER 28, 2020
APPROVED:	DVM	JOB NUMBER:	170818
CAD DATE:	10/7/2020 7:27:35 PM		
CAD FILE:	J:\2017\170818\CAD\Dwgs\C\47-49 EROSION & SEDIMENT CONTROL PLANS.dwg		

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FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
EROSION & SEDIMENT CONTROL PLAN – NORTH AREA

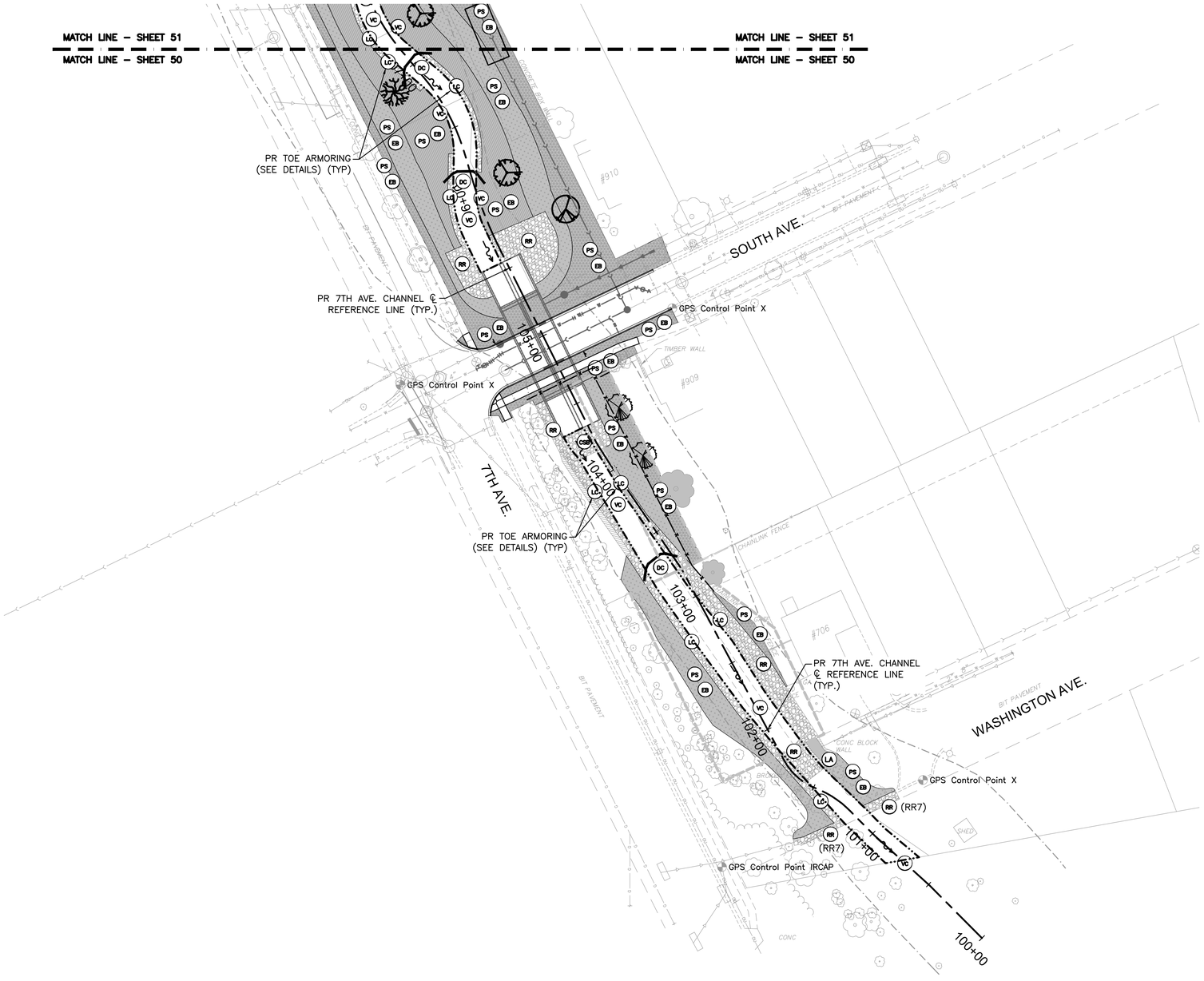
SHEET NO.
49

MESIC PRAIRIE SEED MIXTURE

Scientific name	Common Name	Oz./Acre	lbs./Acre
Grasses & Sedges:			
Bouteloua curtipendula	Side oats grama	37.8	
Carex bicknellii	Copper shouldered sedge	5.2	
Panicum virgatum	Switch grass	20.4	
Schizachyrium scoparium	Little bluestem	128.0	
Total Grasses		**191.4**	**12.0**
Forbs:			
Asclepias tuberosa	Butterfly weed	16.2	
Coreopsis palmata	Stiff coreopsis	9.5	
Echinacea pallida	Pale purple coneflower	17.0	
Eryngium yuccifolium	Rattlesnake master	10.6	
Liatris pycnostachya	Prairie blazing star	10.3	
Monarda fistulosa	Wild bergamot	0.4	
Penstemon digitalis	Foxglove beard tongue	0.8	
Petalostemum purpurea	Purple prairie clover	7.1	
Rudbeckia hirta	Black-eyed Susan	1.0	
Ratibida pinnata	Yellow coneflower	2.2	
Rudbeckia subtomentosa	Sweet black-eyed Susan	1.9	
Symphyotrichum novae-angliae	New England aster	1.5	
Tradescantia ohiensis	Spiderwort	10.8	
Total Forbs		**89.2**	**5.6**
Total All Species		**280.7**	**17.5**
Temporary Cover Crop:			
Elymus canadensis	Canada wild rye	**16.0**	**1.0**
Avena sativa	Common oats	**240.0**	**15.0**

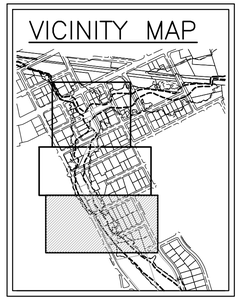
Wet-Mesic Prairie Seed Mixture

Scientific name	Common Name	Oz./Acre	lbs./Acre
Grasses & Sedges:			
Carex scoparia	Pointed broom sedge	3.7	
Carex vulpinoidea	Brown fox sedge	2.4	
Leersia oryzoides	Rice cut grass	3.2	
Spartina pectinata	Prairie cord grass	9.6	
Panicum virgatum	Switch grass	33.9	
Total Grasses		**52.9**	**3.3**
Forbs:			
Asclepias incarnata	Swamp milkweed	20.1	
Eryngium yuccifolium	Rattlesnake master	15.2	
Helenium autumnale	Sneezeweed	1.1	
Lobelia cardinalis	Cardinal flower	0.5	
Monarda fistulosa	Wild bergamot	0.8	
Oligoneuron riddellii	Riddell's goldenrod	1.6	
Penstomen digitalis	Foxglove beard tongue	1.3	
Physostegia virginiana	Obedient plant	4.9	
Rudbeckia hirta	Black eyed Susan	1.1	
Rudbeckia subtomentosa	Sweet black-eyed Susan	2.7	
Ratibida pinnata	Yellow coneflower	2.4	
Symphyotrichum novae-angliae	New England aster	2.0	
Zizia aurea	Golden Alexanders	7.6	
Total Forbs		**61.4**	**3.8**
Total Grasses, Sedges, & Forbs		**114.2**	**7.1**
Temporary Cover Crop:			
Elymus virginicus	Virginia wild rye	**16.0**	**1.0**
Elymus canadensis	Canada wild rye	**16.0**	**1.0**
Avena sativa	Common oats	**240.0**	**15.0**



1 **RESTORATION PLAN**
SCALE: 1" = 40'

NORTH
0 10 20 40



RESTORATION LEGEND:

- INDICATES EROSION CONTROL MEASURE (SEE SHEET 75 FOR EROSION CONTROL LEGEND)
- (PS) INDICATES AREA TO BE SEEDED (CLASS 1B – MAINTENANCE TURF SEED)
- (PS) INDICATES AREA TO BE SEEDED (MESIC PRAIRIE MIX)
- (PS) INDICATES AREA TO BE SEEDED (WET MESIC PRAIRIE MIX)
- (EB) INDICATES AREA TO BE EROSION CONTROL BLANKETED (SEE TYPICAL SECTIONS FOR ADDITIONAL INFORMATION) NOTE: ALL DISTURBED AREAS THAT DO NOT INDICATE TO USE EROSION CONTROL BLANKET, SHALL BE STRAW MULCH, METHOD 2
- (RR) INDICATES PROPOSED RIPRAP AREA CL–A6 (SEE DETAILS)
- (DC) INDICATES CROSS VANE WEIR (SEE DETAILS)
- INDICATES EXISTING TREES TO BE PROTECTED
- INDICATES PROPOSED TREE TO BE PLANTED – SWAMP WHITE OAK TREE (QUERCUS BICOLOR)
- INDICATES PROPOSED TREE TO BE PLANTED – SYCAMORE TREE (PLATANUS OCCIDENTALIS)
- INDICATES PROPOSED TREE TO BE PLANTED – RED OAK TREE (QUERCUS RUBRA)
- INDICATES PROPOSED TREE TO BE PLANTED – BLACK WALNUT TREE (JUGLANS NIGRA)
- INDICATES PROPOSED TREE TO BE PLANTED – CRIMSON SPIRE OAK TREE (QUERCUS ROBUR)
- INDICATES PROPOSED TREE TO BE PLANTED – EMERALD GREEN ARBORVITAE TREE (THUJA OCCIDENTALIS) NOTE: MIN. 6' FOOT TALL

SHEET NOTES:

1. ANY RIP–RAP PLACED IN JURISDICTIONAL AREAS, OR DIRECTLY UPSTREAM SHALL BE CLEANED OF FINES AND DEBRIS PRIOR TO PLACEMENT INTO SAID AREAS

PROJECT NOTES:

1. SEE SHEET 75 FOR EROSION CONTROL GENERAL NOTES AND SPECIFICATIONS
2. SEE SHEET 75 FOR PHASING NOTES (SEQUENCE OF MAJOR ACTIVITIES)
3. SEE SHEET 11 – 13 FOR TYPICAL SECTIONS
4. SEE SHEET 77 – 80 FOR EROSION CONTROL DETAILS

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CAD FILE: J:\2017\170818\CAD\Dwgs\C\50-52 RESTORATION PLANS.dwg
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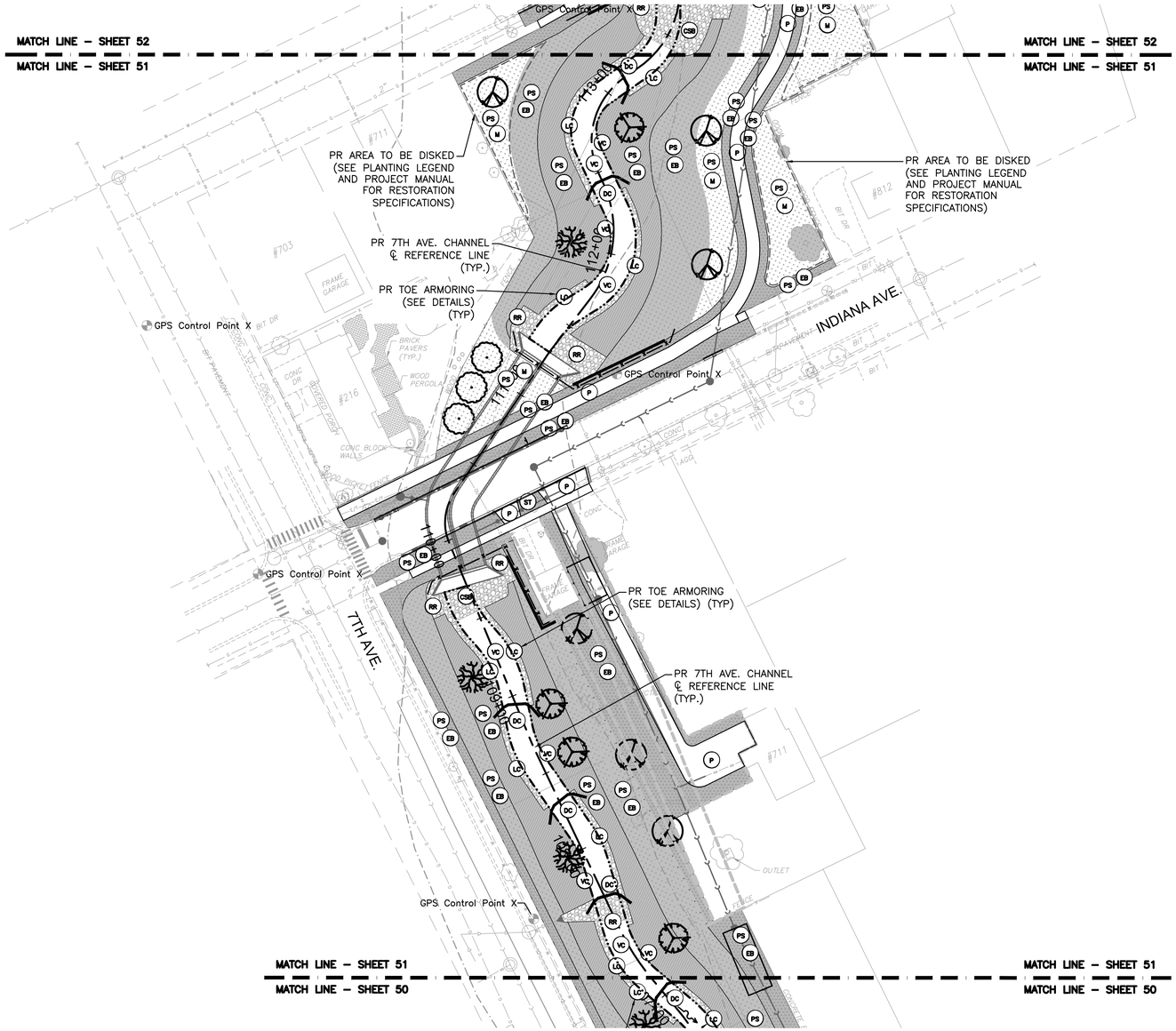
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
RESTORATION PLAN – SOUTH AREA

SHEET NO.
50

Xrefs: xgl-1-dh01; 170818-xv-survey; 170818-xc-drainage; 170818-xc-utilities; xc-1-dgn; xc-1-dgn; xl-dgn; 170818-xc-removals; xc-1-row



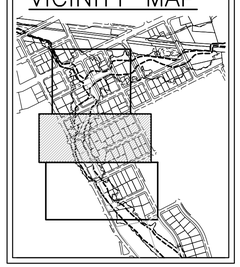
1 RESTORATION PLAN
SCALE: 1" = 40'

NORTH
0 10 20 40

SHEET NOTES:

1. ANY RIP–RAP PLACED IN JURISDICTIONAL AREAS, OR DIRECTLY UPSTREAM SHALL BE CLEANED OF FINES AND DEBRIS PRIOR TO PLACEMENT INTO SAID AREAS

VICINITY MAP



RESTORATION LEGEND:

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- PS — INDICATES AREA TO BE SEEDED (CLASS 1B – MAINTENANCE TURF SEED)
- PS — INDICATES AREA TO BE SEEDED (MESIC PRAIRIE MIX)
- PS — INDICATES AREA TO BE SEEDED (WET MESIC PRAIRIE MIX)
- EB — INDICATES AREA TO BE EROSION CONTROL BLANKETED (SEE TYPICAL SECTIONS FOR ADDITIONAL INFORMATION)
  NOTE: ALL DISTURBED AREAS THAT DO NOT INDICATE TO USE EROSION CONTROL BLANKET, SHALL BE STRAW MULCH, METHOD 2
- RR — INDICATES PROPOSED RIPRAP AREA CL–A6 (SEE DETAILS)
- DC — INDICATES CROSS VANE WEIR (SEE DETAILS)
- INDICATES EXISTING TREES TO BE PROTECTED
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- INDICATES PROPOSED TREE TO BE PLANTED – EMERALD GREEN ARBORVITAE TREE (THUJA OCCIDENTALIS)
  NOTE: MIN. 6 FOOT TALL

PROJECT NOTES:

1. SEE SHEET 75 FOR EROSION CONTROL GENERAL NOTES AND SPECIFICATIONS
2. SEE SHEET 75 FOR PHASING NOTES (SEQUENCE OF MAJOR ACTIVITIES)
3. SEE SHEET 11 – 13 FOR TYPICAL SECTIONS
4. SEE SHEET 77 – 80 FOR EROSION CONTROL DETAILS

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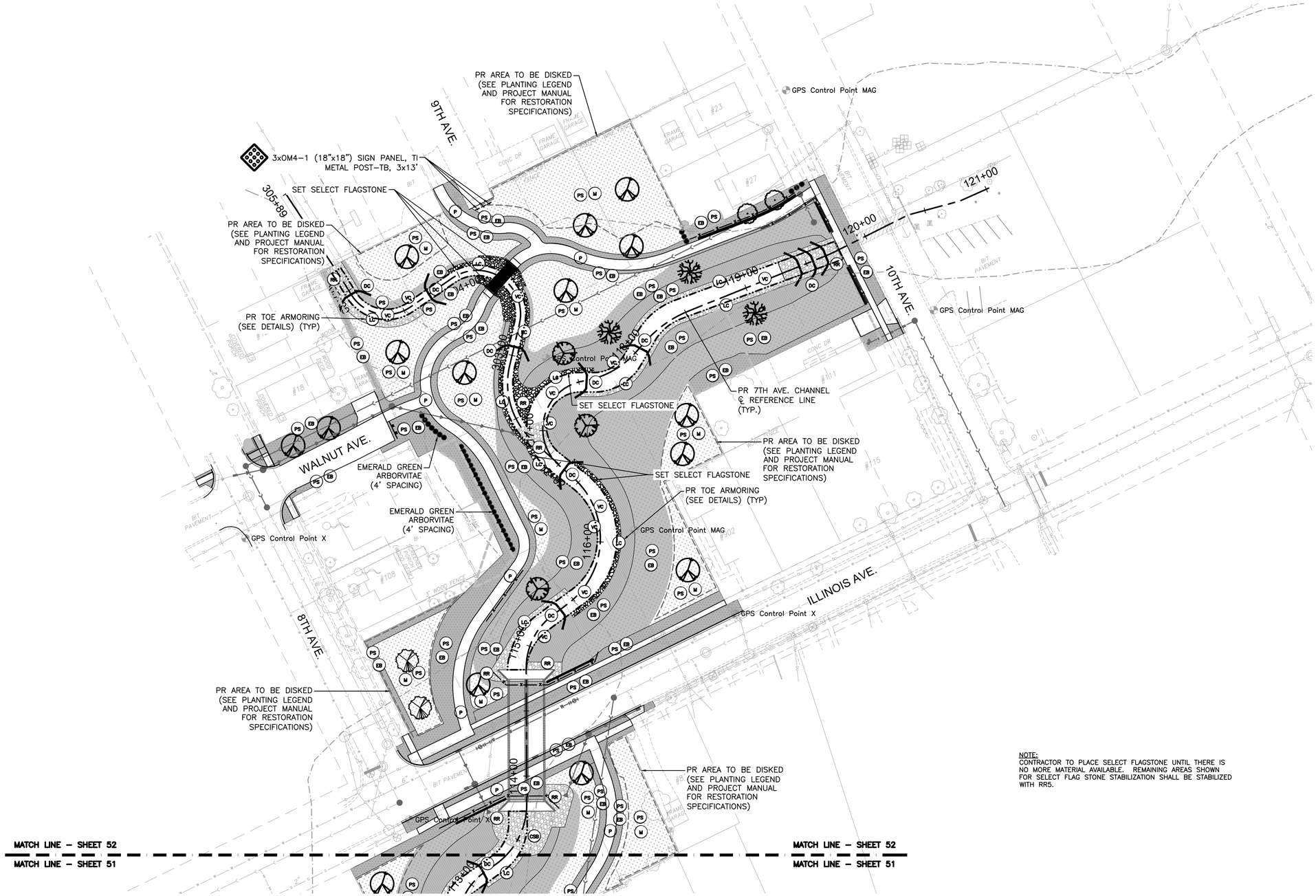
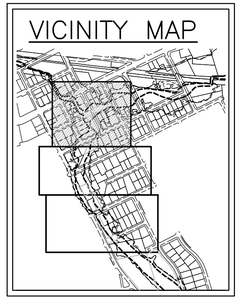
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
RESTORATION PLAN – CENTRAL AREA

SHEET NO.
51



VICINITY MAP



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- INDICATES PROPOSED TREE TO BE PLANTED – EMERALD GREEN ARBORVITAE TREE (THUJA OCCIDENTALIS)
  NOTE: MIN. 6 FOOT TALL

NOTE:
CONTRACTOR TO PLACE SELECT FLAGSTONE UNTIL THERE IS NO MORE MATERIAL AVAILABLE. REMAINING AREAS SHOWN FOR SELECT FLAG STONE STABILIZATION SHALL BE STABILIZED WITH RR5.

PROJECT NOTES:

1. SEE SHEET 75 FOR EROSION CONTROL GENERAL NOTES AND SPECIFICATIONS
2. SEE SHEET 75 FOR PHASING NOTES (SEQUENCE OF MAJOR ACTIVITIES)
3. SEE SHEET 11 – 13 FOR TYPICAL SECTIONS
4. SEE SHEET 77 – 80 FOR EROSION CONTROL DETAILS

1 RESTORATION PLAN

SCALE: 1" = 40'

NORTH

0 10 20 40

SHEET NOTES:

1. ANY RIP-RAP PLACED IN JURISDICTIONAL AREAS, OR DIRECTLY UPSTREAM SHALL BE CLEANED OF FINES AND DEBRIS PRIOR TO PLACEMENT INTO SAID AREAS

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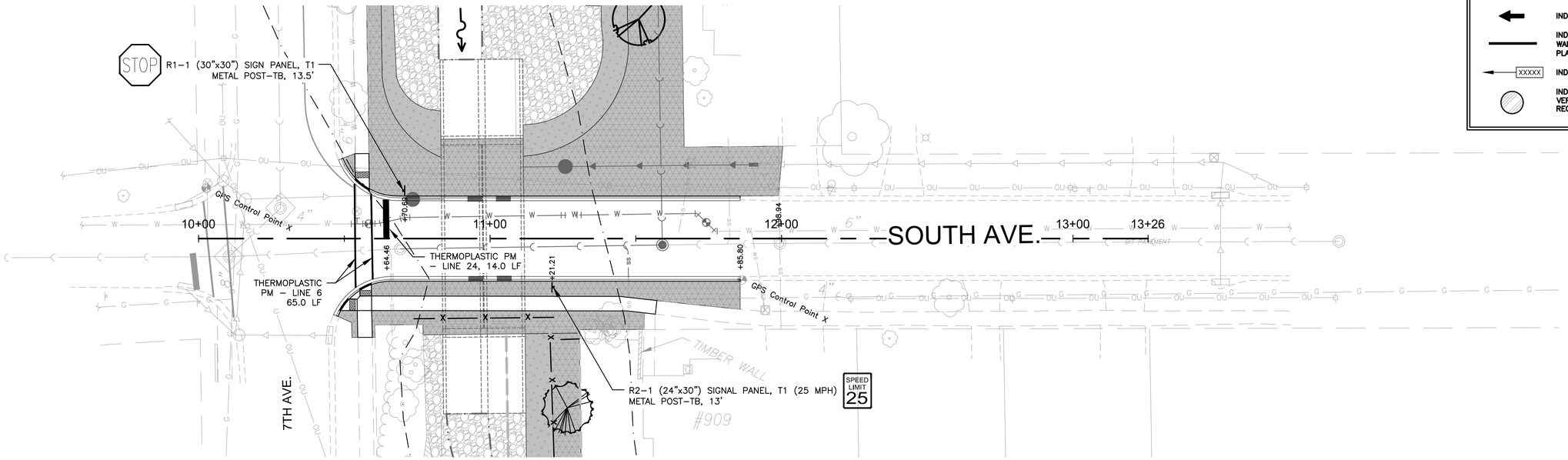
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
RESTORATION PLAN – NORTH AREA

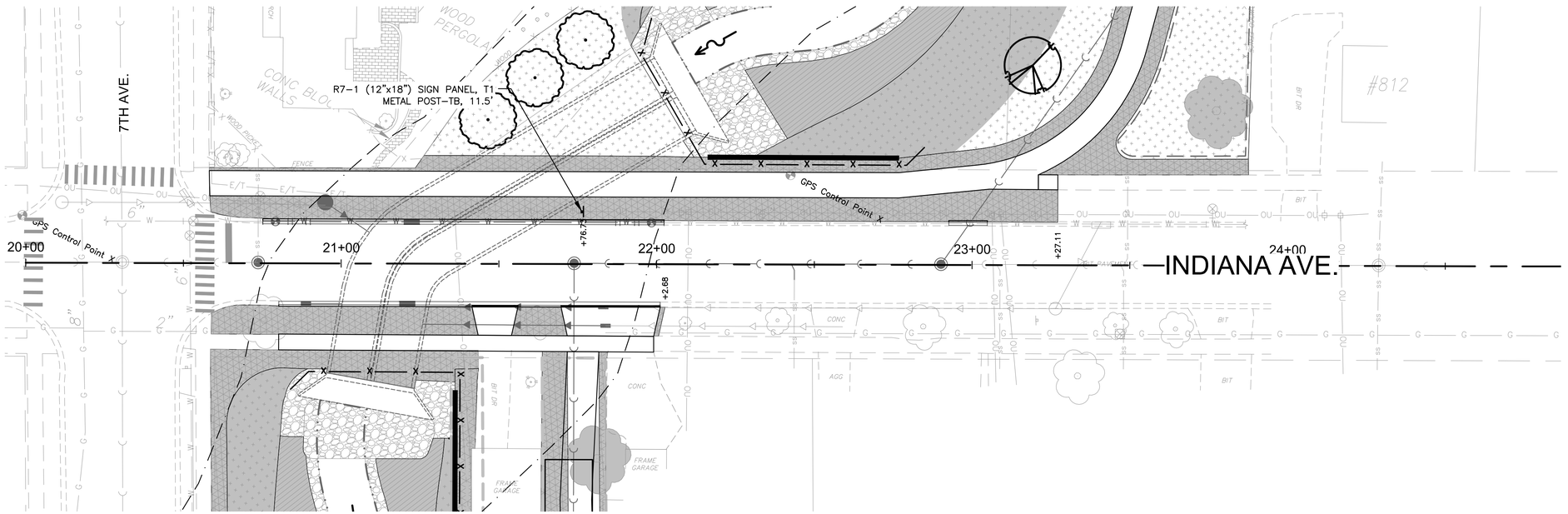
SHEET NO.
52



1 SOUTH AVE
SCALE: 1" = 20'

LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)
- XXXXX INDICATES UTILITY TAGS
- INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS



2 INDIANA AVE
SCALE: 1" = 20'

LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)
- XXXXX INDICATES UTILITY TAGS
- INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS

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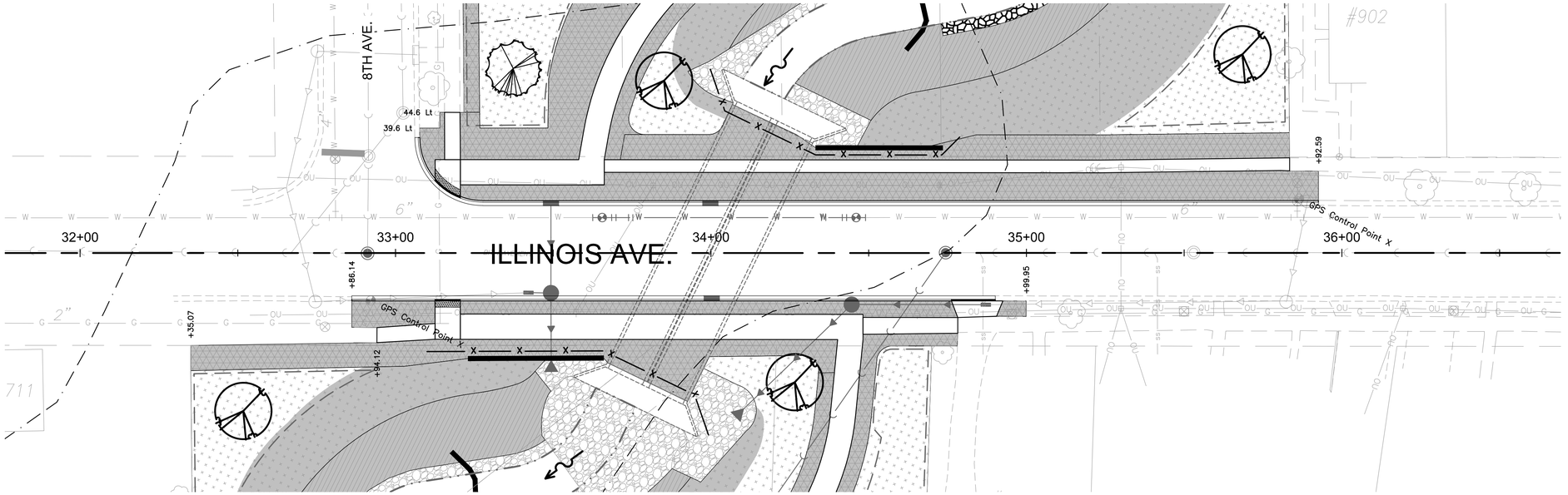
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS - PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
RESTORATION PLAN - ROADWAYS
SOUTH AVE & INDIANA AVE

SHEET NO. 53

Xrefs: xg1-1-dh01; 170818-xv-survey; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-1-row; xl-dsgn; 170818-xc-removals



3 ILLINOIS AVE

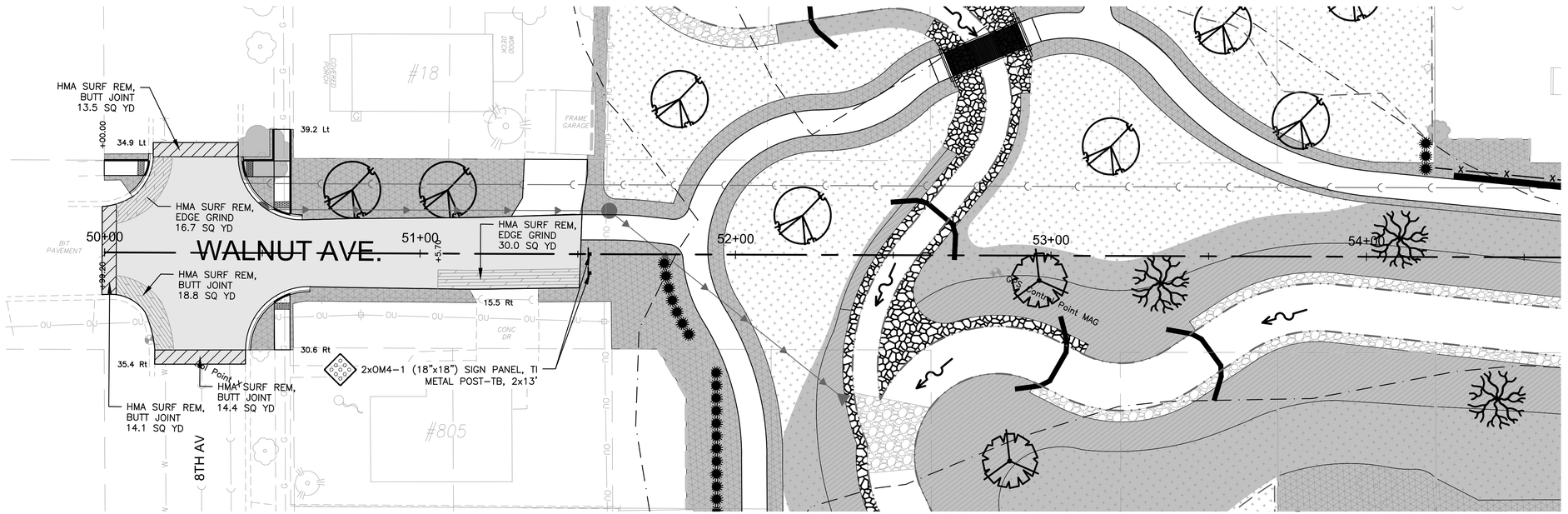
SCALE: 1" = 20'

LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)
- XXXXX INDICATES UTILITY TAGS
- INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS

NORTH

0 5 10 20



4 WALNUT AVE

SCALE: 1" = 20'

LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)
- XXXXX INDICATES UTILITY TAGS
- INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS
- HMA RESURFACING (SEE TYPICAL SECTION ON SHEET 10)

NORTH

0 5 10 20

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FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS - PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

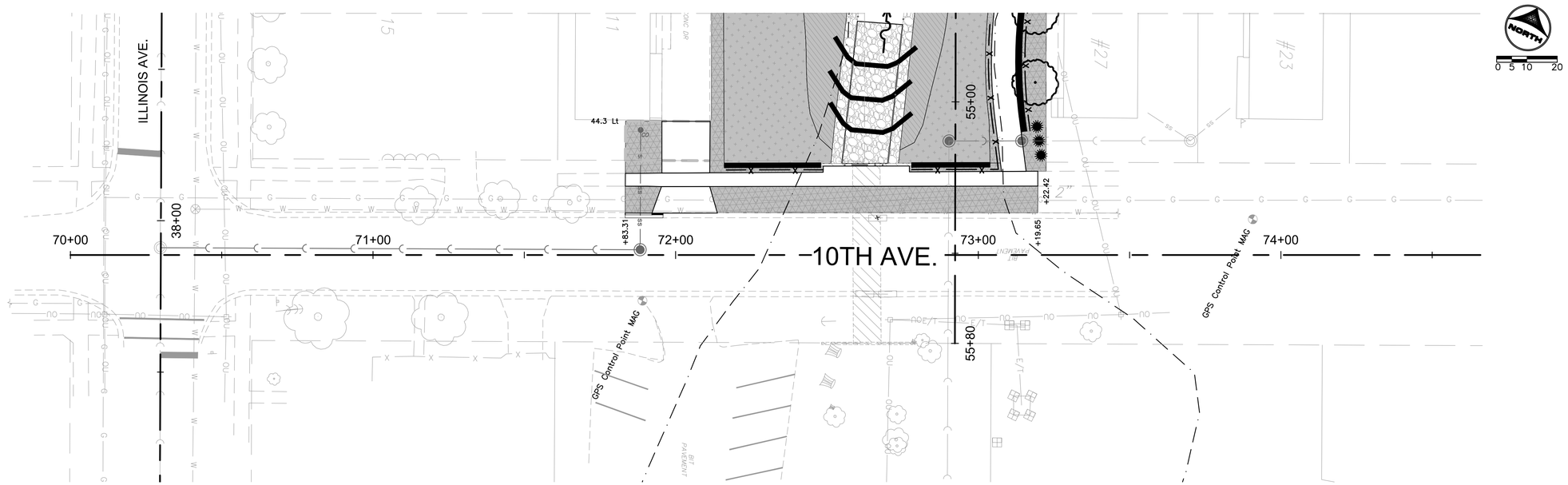
SHEETS
RESTORATION PLAN - ROADWAYS
ILLINOIS AVE & WALNUT AVE

SHEET NO. 54

Xrefs: xgl-1-dh01; 170818-xv-survey; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-1-row; xl-dsgn; 170818-xc-removals

LEGEND:

- INDICATES PROPOSED DRAINAGE DIRECTION ARROW.
- INDICATES HIGH FLOW EVENT PATH
- INDICATES PROPOSED RETAINING WALL LOCATION (SEE STRUCTURAL PLANS FOR DETAILS)
- XXXXX — INDICATES UTILITY TAGS
- INDICATES MAINTAIN I.E.PA'S VERTICAL SEPARATION REQUIREMENTS



5 10TH AVE
SCALE: 1" = 20'

FOR BIDDING ONLY

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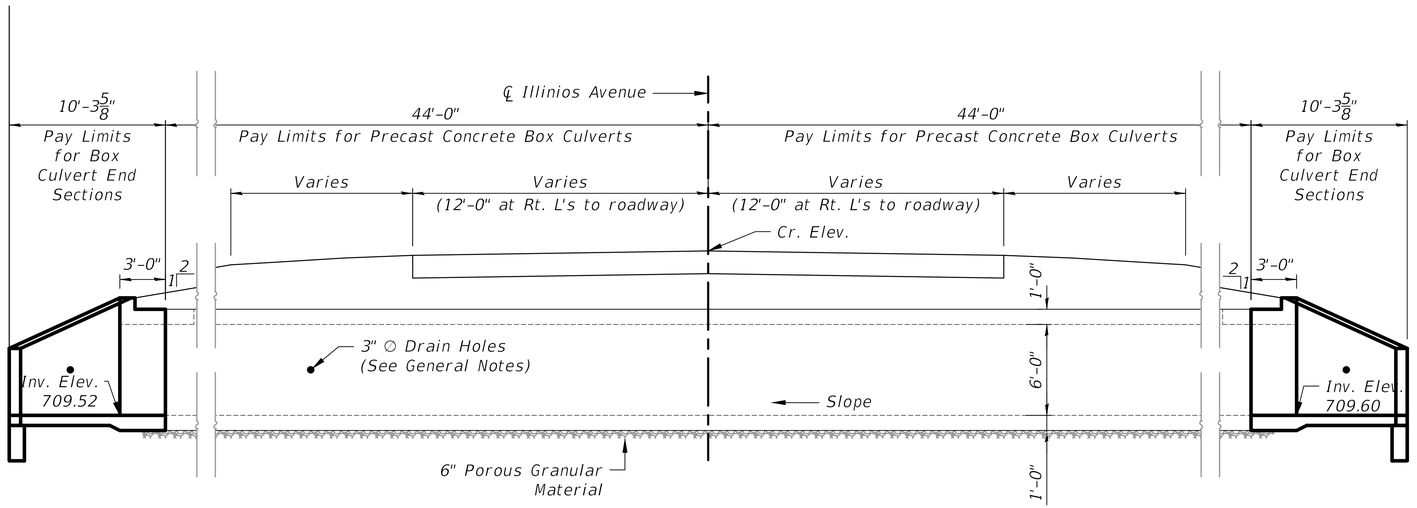
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

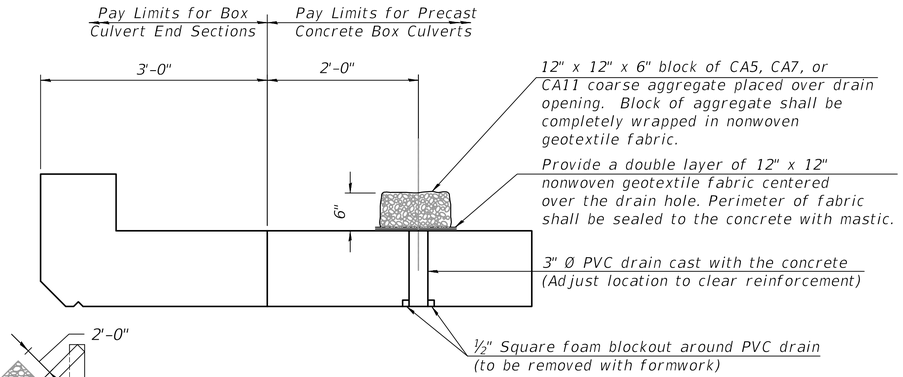
SHEETS
RESTORATION PLAN – ROADWAYS
10TH AVE

SHEET NO.
55

Xrefs: xg1-1-dh01; 170818-xv-survey; 170818-xc-drainage; 170818-xc-utilities; xc-1-dsgn; xc-1-row; xl-dsgn; 170818-xc-removals

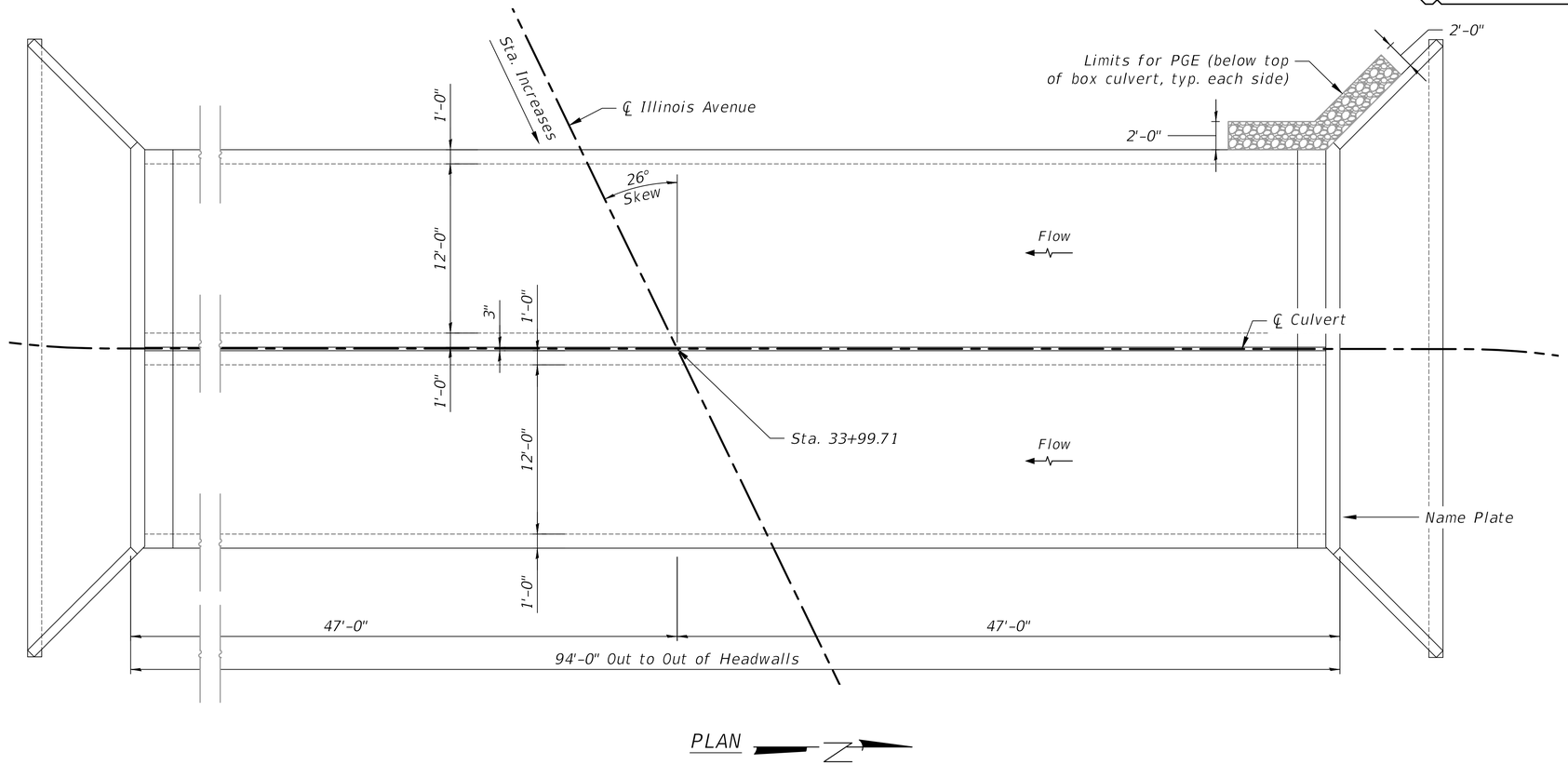


ELEVATION



DRAIN DETAIL

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)



PLAN

GENERAL NOTES

The design fill height for this box is 0 to 2 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, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.

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 backfilled 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.

STATION
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CITY OF ST. CHARLES
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NAME PLATE
See Std. 515001

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications 8th Edition with interims

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DESIGN STRESSES

PRECAST UNITS

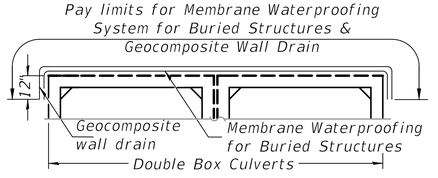
f'c = 5,000 psi
fy = 65,000 psi (Welded Wire Reinf.)

FIELD UNITS

f'c = 3,500 psi
fy = 65,000 psi (Welded Wire Reinf.)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Box Culvert End Sections, Culvert No. 1	Each	2
Precast Concrete Box Culverts, 12x6	Foot	176
Porous Granular Embankment	Cu Yd	109
Membrane Waterproofing System	Sq Yd	306



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DRAWN BY: CTK JOB DATE: OCTOBER 28, 2020
APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/27/2020 12:01:56 PM
CAD FILE: J:\2017\170818\CAD\Dwgs\S\56 GENERAL PLAN AND ELEVATION CULVERT

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NO.	DATE	BY	REVISION DESCRIPTION

ILLINOIS AVENUE.dwg

HRGreen
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McHENRY, ILLINOIS 60050
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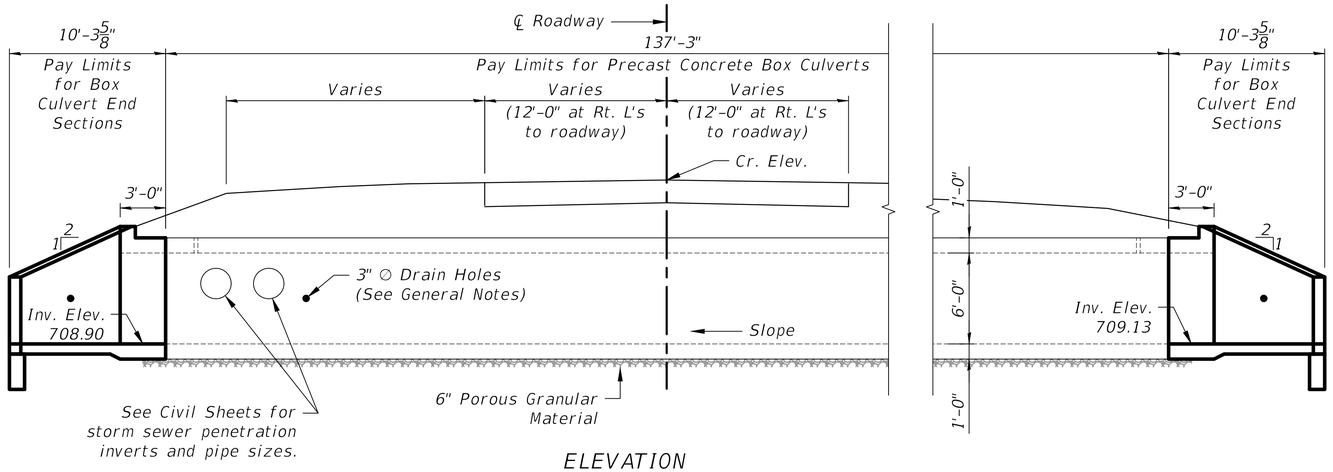
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
GENERAL PLAN AND ELEVATION
CULVERT 1 ILLINOIS AVENUE

SHEET NO.
56

Xrefs: xg-1-dh01; 170818-xc-drainage; 170818-xc-utilities; 170818-xv-survey; xs-Culvert Plan; xc-1-algn; xs-Culvert Details-01



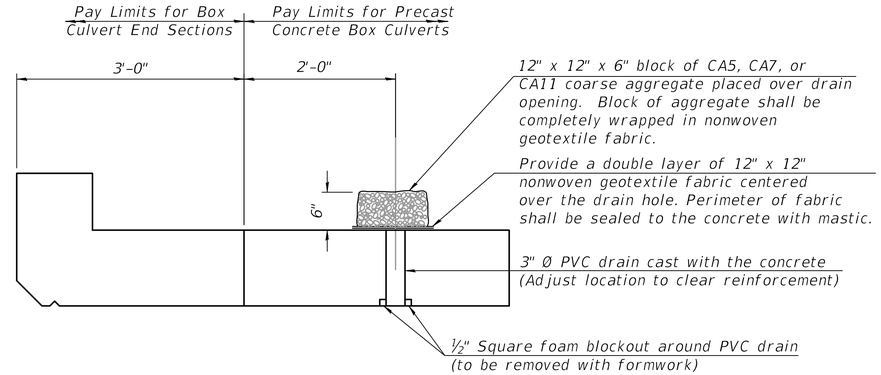
ELEVATION

GENERAL NOTES

The design fill height for this box is 0 to 2 ft. The precast box culvert sections shall conform to the requirements of ASTM C 1577.

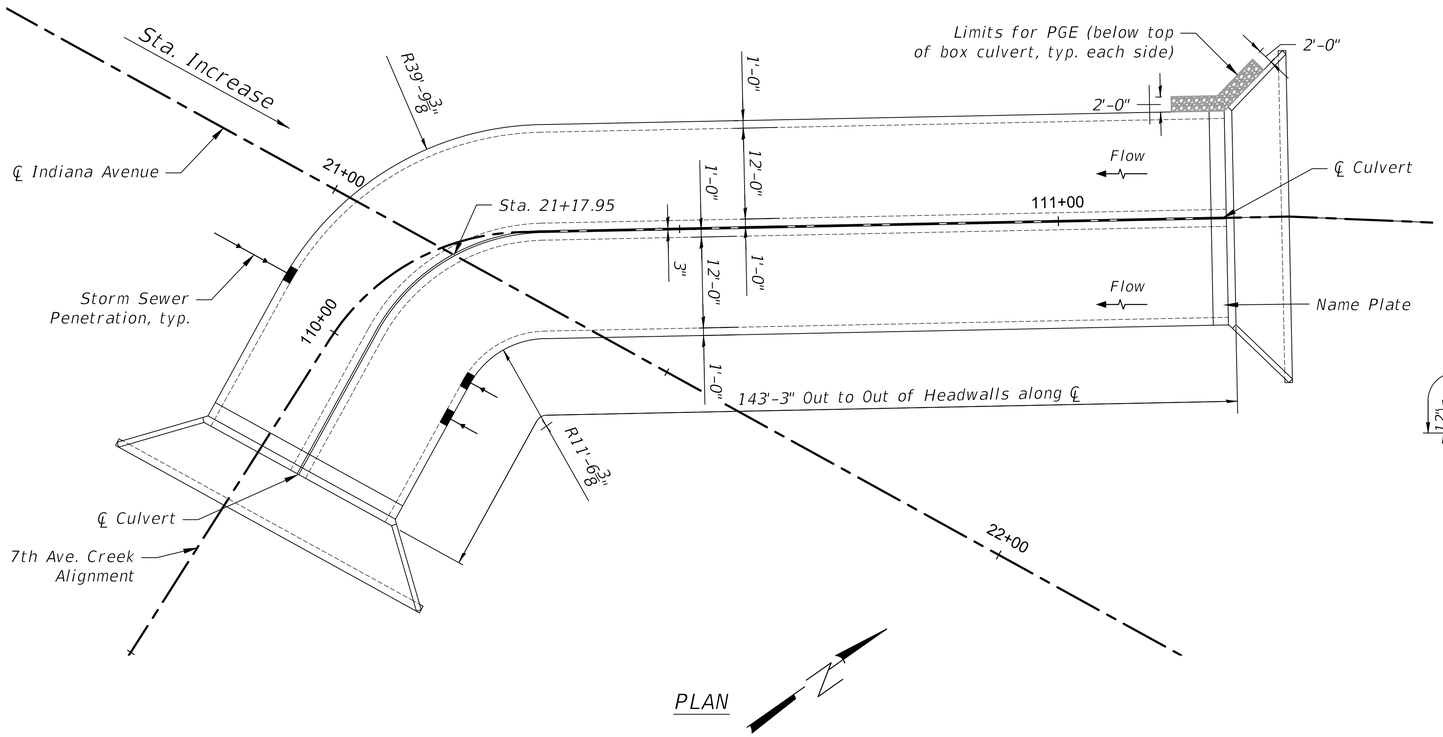
Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.

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 backfilled 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.



DRAIN DETAIL

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)



PLAN

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications
8th Edition with interims

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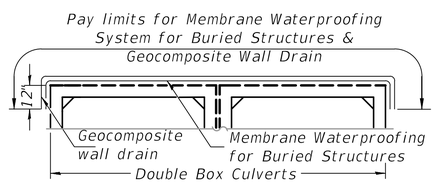
DESIGN STRESSES

PRECAST UNITS

f'c = 5,000 psi
fy = 65,000 psi (Welded Wire Reinforcement)

FIELD UNITS

f'c = 3,500 psi
fy = 65,000 psi (Welded Wire Reinforcement)



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STR. NO.

NAME PLATE
See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Box Culvert End Sections, Culvert No. 2	Each	2
Precast Concrete Box Culverts, 12x6	Foot	274.5
Porous Granular Embankment	Cu Yd	167
Membrane Waterproofing System	Sq Yd	472

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CAD DATE: 10/26/2020 8:32:14 AM
CAD FILE: J:\2017\170818\CAD\Dwgs\S\57 GENERAL PLAN AND ELEVATION CULVERT 2 INDIANA AVENUE.dwg

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0 1"
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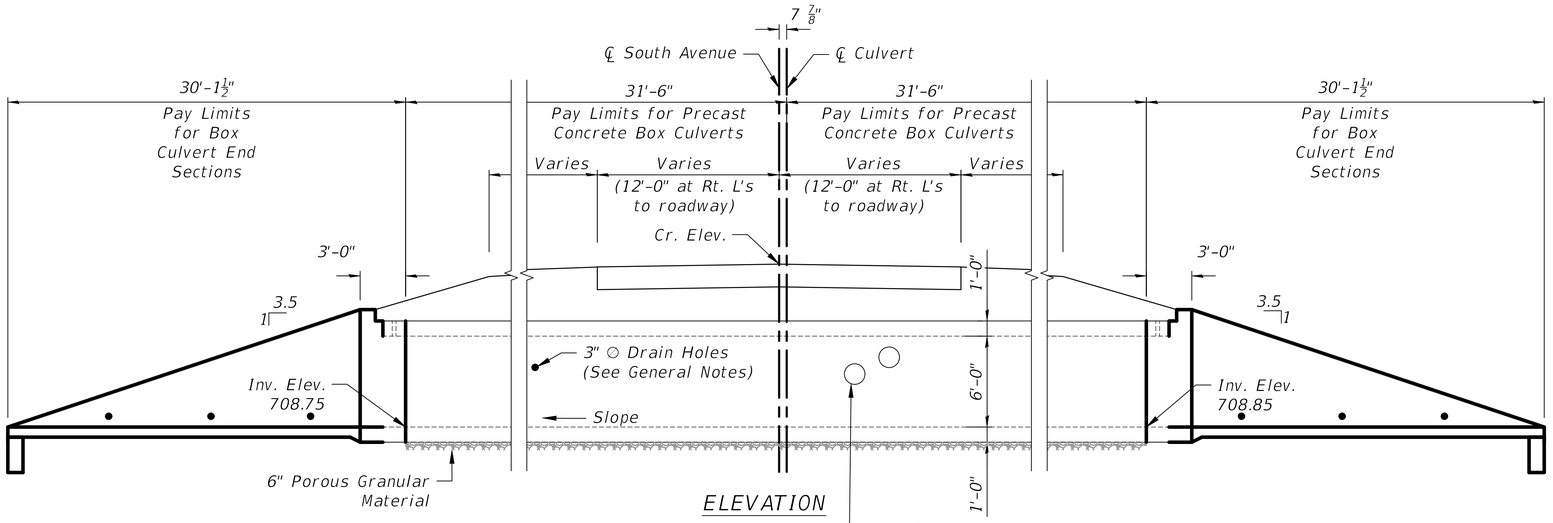
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
GENERAL PLAN AND ELEVATION
CULVERT 2 INDIANA AVENUE

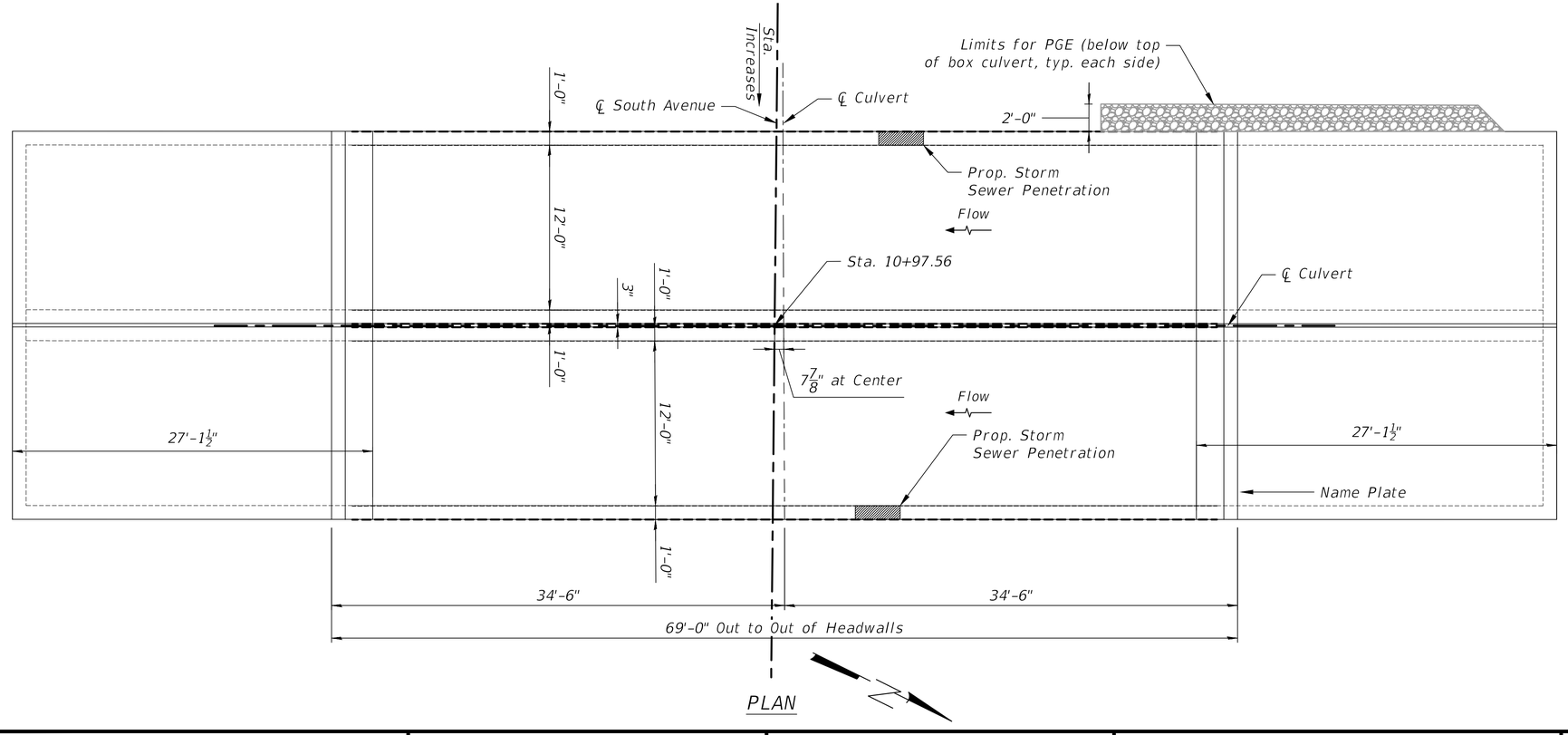
SHEET NO.
57

Xrefs: xgt-1-dh01; 170818-xc-drainage; 170818-xc-utilities; 170818-xv-survey; xs-Culvert Plan; xc-1-algn; xs-Culvert Details-01



ELEVATION

See Roadway Plans for Storm Sewer Penetration Inverts & Sizes



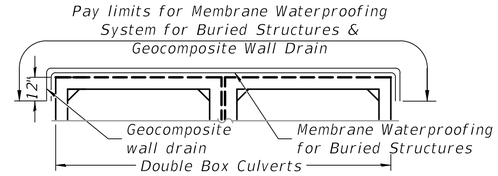
PLAN

GENERAL NOTES

The design fill height for this box is 0 to 2 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, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.

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 backfilled 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.



STATION
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STATE OF ILLINOIS
F.A. RT. SEC.
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STR. NO.

NAME PLATE

See Std. 515001

DESIGN SPECIFICATIONS

2018 AASHTO LRFD Bridge Design Specifications
8th Edition with interims

LOADING HL-93

DESIGN STRESSES

PRECAST UNITS

f'c = 5,000 psi
fy = 65,000 psi (Welded Wire Reinforcement)

FIELD UNITS

f'c = 3,500 psi
fy = 65,000 psi (Welded Wire Reinforcement)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	Each	1
Box Culvert End Sections, Culvert No. 3	Each	4
Precast Concrete Box Culverts, 12x6	Foot	126
Porous Granular Embankment	Cu Yd	84
Membrane Waterproofing System	Sq Yd	222

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CAD FILE: J:\2017\170818\CAD\Dwgs\S\58 GENERAL PLAN AND ELEVATION CULVERT 3 SOUTH AVENUE.dwg

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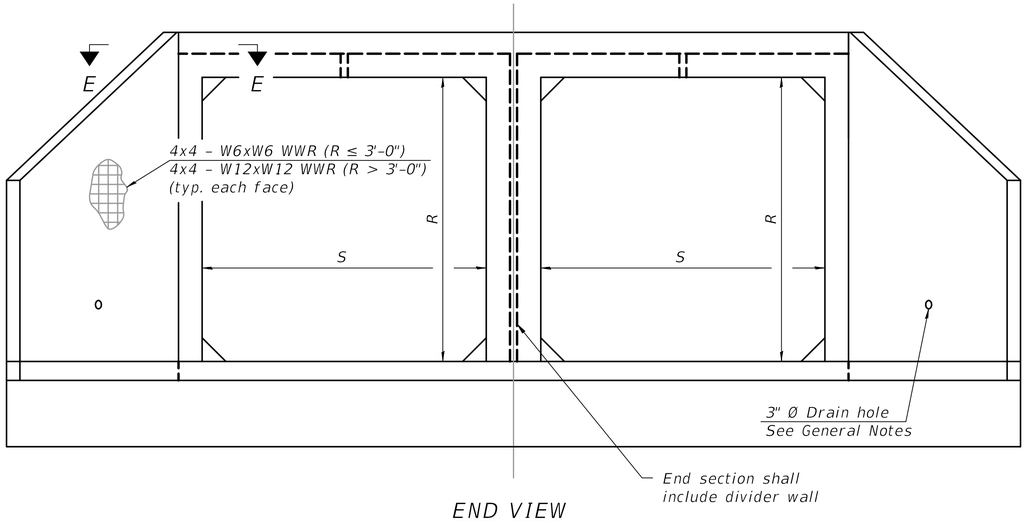
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
GENERAL PLAN AND ELEVATION
CULVERT 3 SOUTH AVENUE

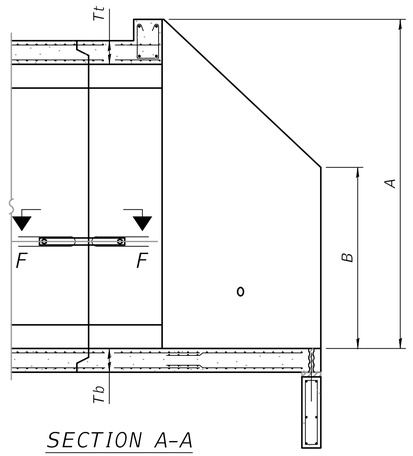
SHEET NO. 58

Xrefs: xg-1-dh01; 170818-xc-drainage; 170818-xc-utilities; 170818-xv-survey; xs-Culvert Plan; xc-1-algn; xs-Culvert Details-01



END VIEW

For Section Details, See Next Sheet



SECTION A–A

GENERAL NOTES

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. End sections will be paid for at the contract unit price per each for Box Culvert End Sections.

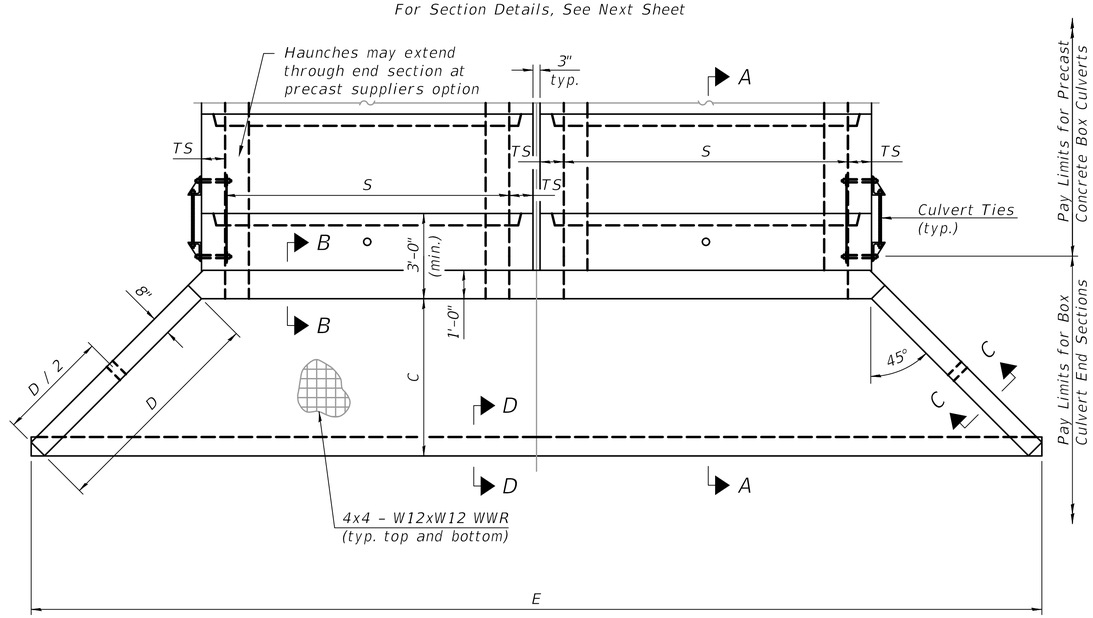
Box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements for ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

The details contained herein are for general information purposes only. The Contractor shall furnish the end sections using precast construction methods. The end sections may consist of multiple precast concrete segments. The Contractor shall be responsible for determining all details associated with the precast end sections including any strengthening or stiffening provisions necessary for handling the precast segments. Conceptual details followed by shop drawings and design calculations sealed by an Illinois Licensed Structural Engineer shall be submitted to the Engineer for review and approval. The precast design shall at a minimum result in the same wingwall geometry and not have a thickness less than that detailed herein. The Contractor's unit price bid shall be for the precast construction methods including all labor and material noted in the Special Provision for Box Culvert End Sections.

Shop drawings that detail slab thickness and reinforcement layout for the Box Culvert End Sections shall be provided to the Engineer for review and approval. Reinforcement bars not detailed herein shall be detailed with a clear distance at the end of the reinforcement not less than ½" nor more than 2". Shop drawings shall include any mechanical connections for culvert ties between precast segments of the box culvert and box culvert end section. No overlap of measured limits for Box Culvert End Sections and Precast Concrete Box Culvert are permitted. Contractor shall confirm final length of Precast Concrete Box Culvert accounts for final limits of Box Culvert End Section provided by supplier.

The contractor may use reinforcement bars in lieu of welded wire reinforcement (WWR). Reinforcement bars shall be limited to the sizes of #3 through #5 bars, a maximum spacing of the lesser of 8" or the member thickness, and shall result in an area of reinforcement equal to or greater than that provided by the WWR. Minimum lap lengths detailed herein are applicable to WWR and reinforcement bars.

One drain hole shall be provided in each wingwall for end sections of box culverts having an opening 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 shall conform to the requirements of Article 503.11 of the Standard Specifications.



PLAN

For Section Details, See Next Sheet

APRON END SECTION DIMENSIONS

							Double Cell		Culvert Location
Span (S)	Rise (R)	Tt , Tb , & Ts	A	B	C	D	E	Concrete Cu. Yd.	
12'-0"	6'-0"	12"	7'-9"	4'-5"	7'-3⅝"	10'-4"	43'-9⅝"	19.8	Illinois Ave & Indiana Ave

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CAD FILE: J:\2017\170818\CAD\Dwgs\S\59-63 CULVERT DETAILS – SOUTH AVE..dwg

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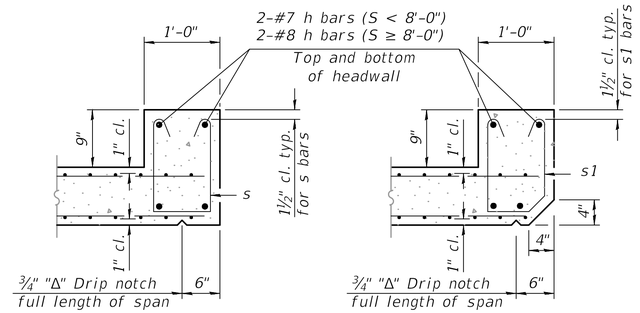
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
CULVERT DETAILS – ILLINOIS & INDIANA AVE

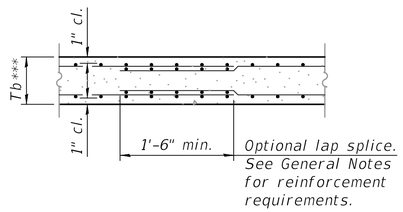
SHEET NO.
59

Xrefs: xgl-1-dh01; xs-Culvert Details-01

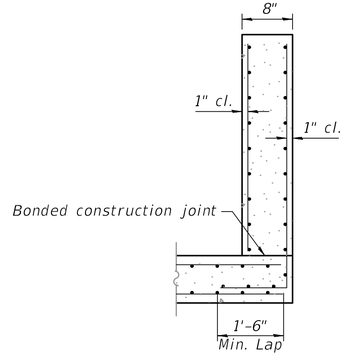


SECTION B-B
(Top slab at downstream end)

SECTION B-B
(Top slab at upstream end)



SECTION B-B
(Bottom Slab)



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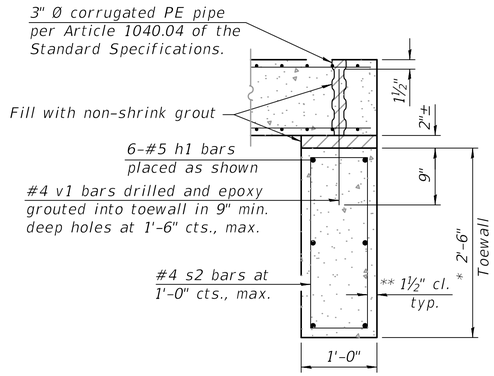
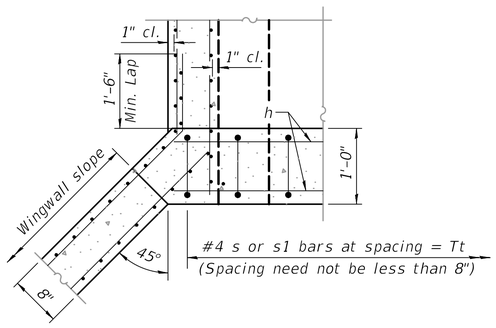
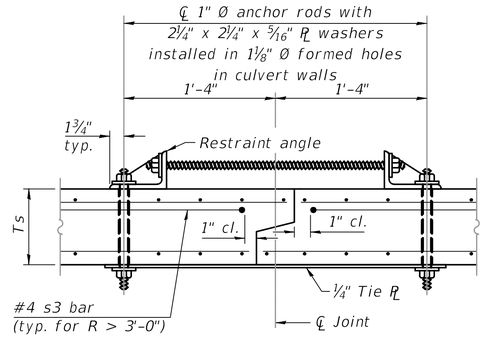


SECTION D-D

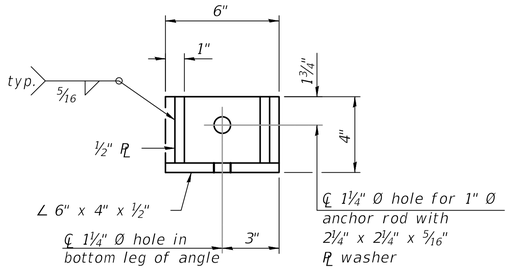
*** This dimension shall be increased by 2" for CIP construction.



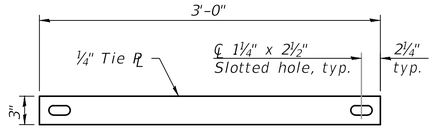
SECTION E-E



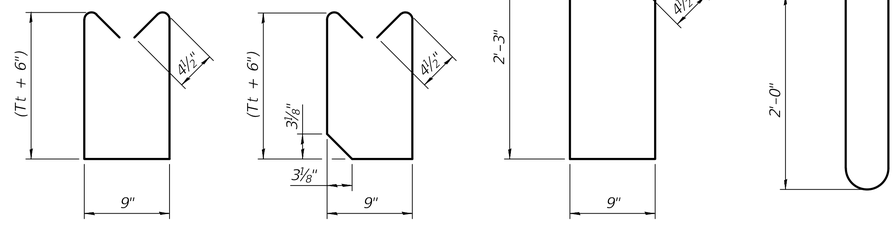
SECTION F-F
(Showing culvert tie details)



RESTRAINT ANGLE DETAIL



TIE PLATE DETAIL



BAR s

BAR s1

BAR s2

BAR s3

TOEWALL CONSTRUCTION SEQUENCE

1. Perform excavation and construct toewall.
2. Backfill accordingly and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling method.

** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.

Notes:

1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for the tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2¼"x2¼"x5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional ½ turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

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Xrefs: xgt-1-dh01; xs-Culvert Details-01

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APPROVED:	DVM	JOB NUMBER:	170818
CAD DATE:	10/26/2020 3:36:37 PM		
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McHENRY, ILLINOIS 60050
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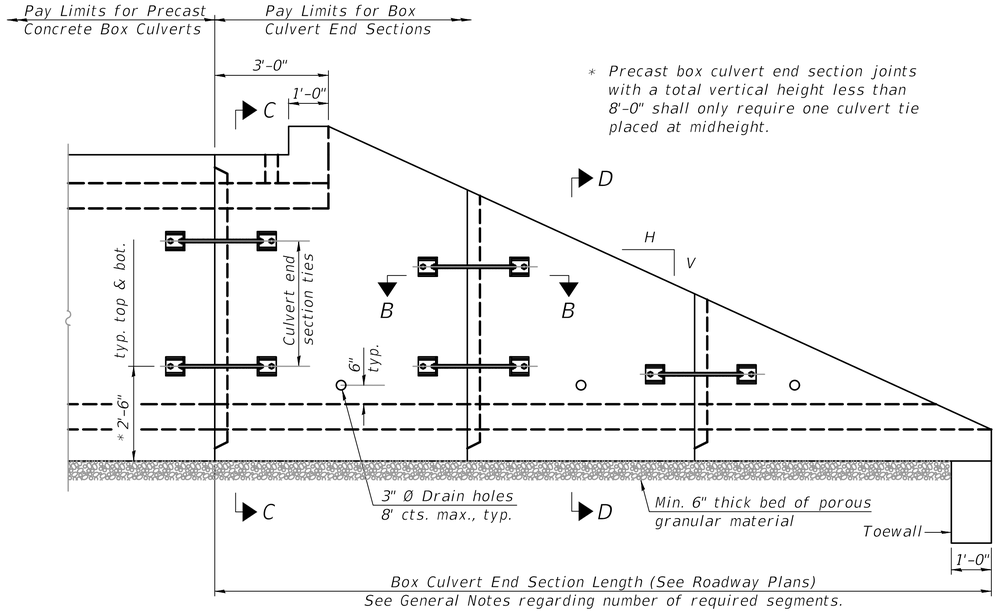
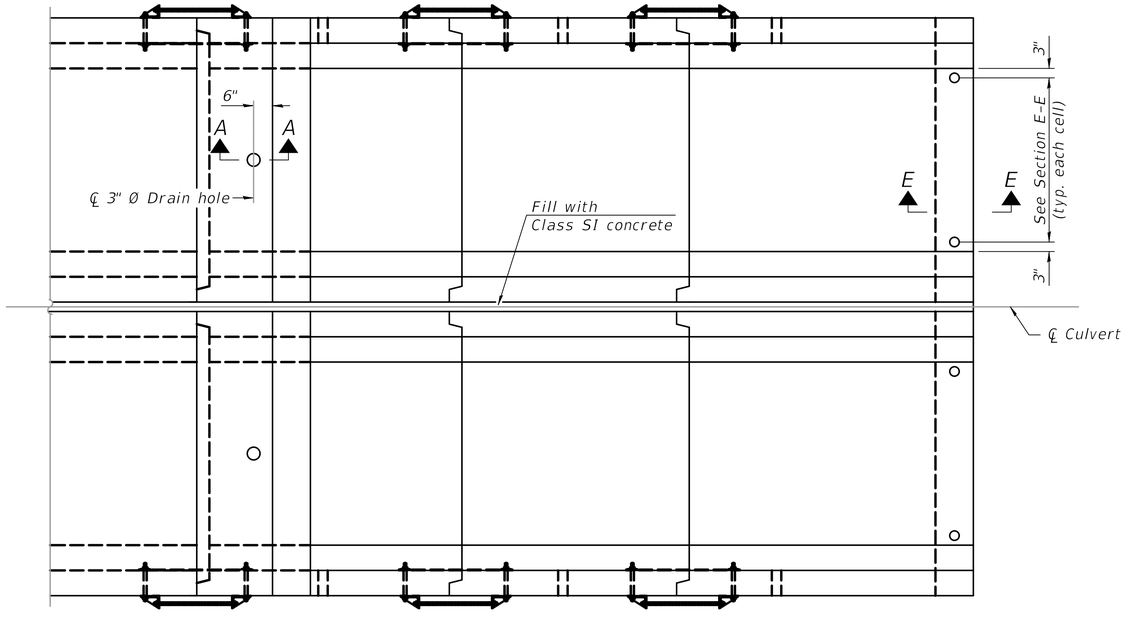
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
CULVERT DETAILS - ILLINOIS & INDIANA AVE

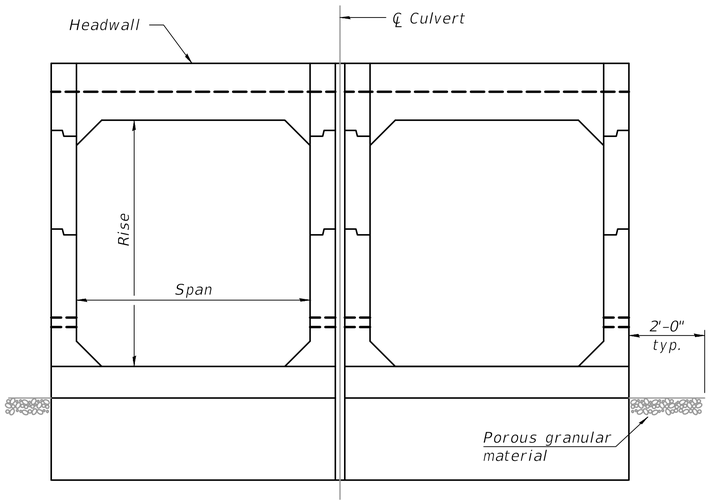
SHEET NO.
60



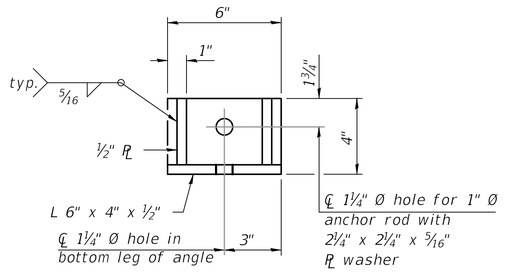
ELEVATION



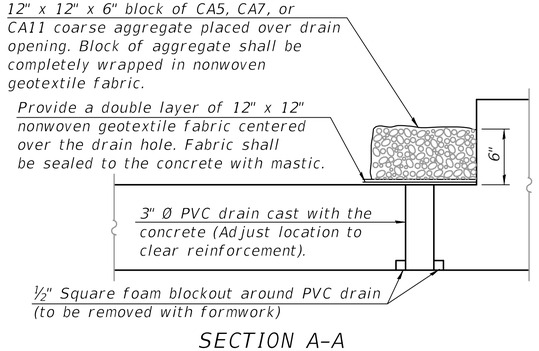
PLAN



END VIEW

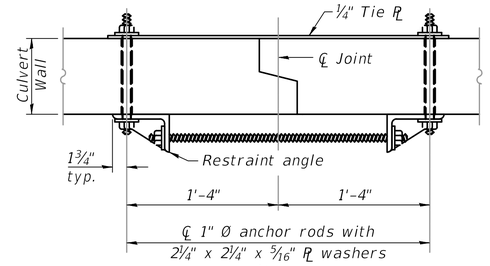


RESTRAINT ANGLE DETAIL



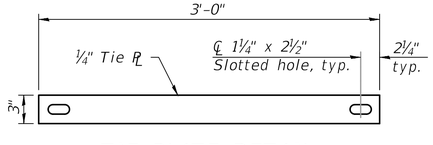
SECTION A-A

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)



SECTION B-B

(Showing end section tie details)



TIE PLATE DETAIL

GENERAL NOTES

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. This work will be measured for payment as each, with each end of each culvert being one each. End sections will be paid for at the contract unit price per each for Box Culvert End Sections of the culvert number specified.

Typical box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements of ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

Number of segments shown in Elevation is for example only. Length and number of precast box sections required to construct Box Culvert End Sections shall be determined by the Contractor.

See roadway plans for embankment slope (V:H).

1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2¼" x 2¼" x 5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional ½ turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

All costs associated with furnishing and installing or constructing the toewall and culvert ties will not be measured for payment but shall be included in the contract unit price for Box Culvert End Sections of the culvert number specified.

Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01. The minimum weight of the fabric shall be 6 oz. / sq. yd..

For end sections with traversable pipe grate systems, see grate detail sheet for required modifications.

The 3" nominal space between adjacent end sections shall be filled with Class SI concrete in accordance with Article 540.06 of the Standard Specifications. Cost included with Box Culvert End Sections.

Details for double cell box culvert shown. Details for other multi-cell box culverts similar.

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CAD FILE:	J:\2017\170818\CAD\Dwgs\S\59-63 CULVERT DETAILS - SOUTH AVE..dwg		

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

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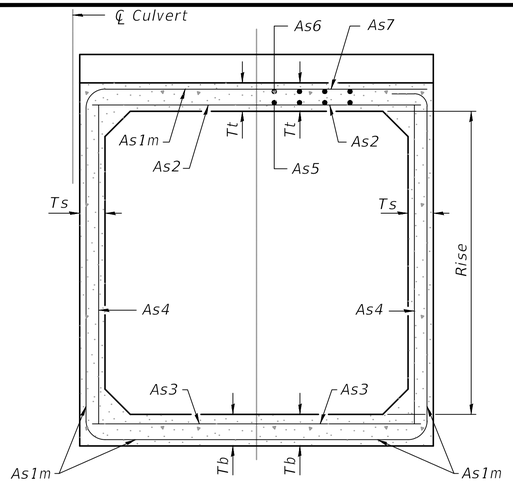
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS - PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
CULVERT DETAILS - SOUTH AVE.

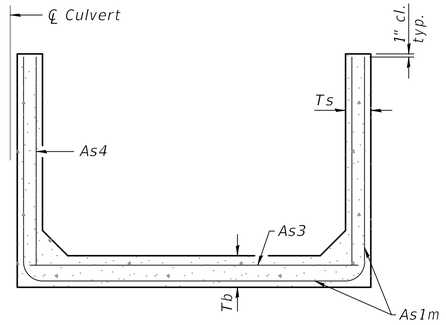
SHEET NO. 61

Xrefs: xgl-1-dh01; xs-Culvert Details-01

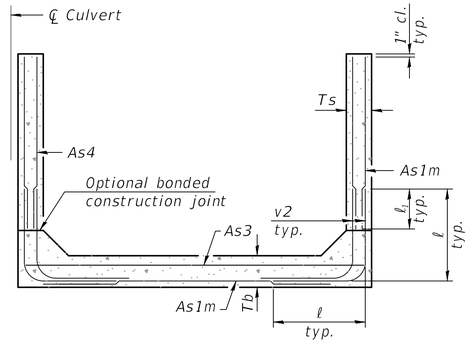


(Design Earth Cover ≥ 2 ft) (Design Earth Cover < 2 ft)

SECTION C–C



SECTION D–D



ALTERNATE SECTION D–D

REQUIRED BAR LAPS

#3 bar = 2'–0"
#4 bar = 2'–8"
#5 bar = 3'–4"
#6 bar = 3'–11"

A_{s1m} REINFORCEMENT (in.²/ ft)	
Ts (in.) \ Rise (ft)	6
4	
5	
6	
7	
8	0.34
9	0.37
10	0.41
11	0.44
12	0.48

(As1m reinforcement based upon welded wire reinforcement conforming to AASHTO M 55 or M 221).

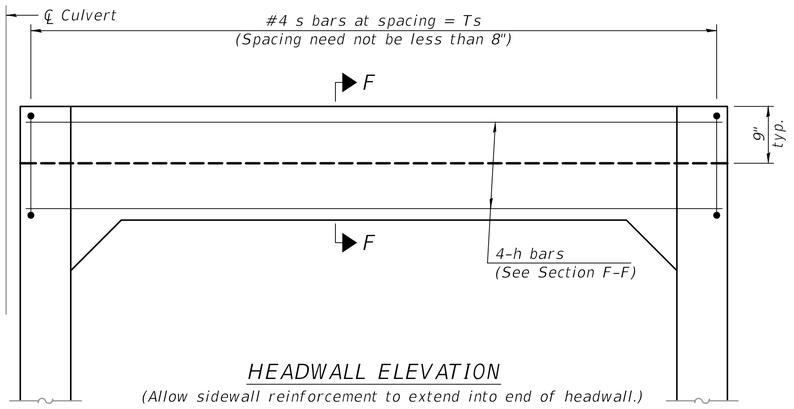
Notes:

Alternate Section D–D is provided to allow the Contractor the option of casting the bottom slab of the end section first followed by construction of the sidewalls using conventional forming methods. Shop drawings that detail slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval when using Alternate Section D–D.

The size and spacing of the v2 bars shall provide a minimum reinforcement area along each face of the walls (in.²/ft.) equal to 1.10^{*}(As1m). v2 bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.

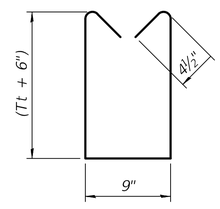
Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.

Sections C–C, D–D, and Headwall Elevation are symmetric about ℄ culvert through 180° rotation.

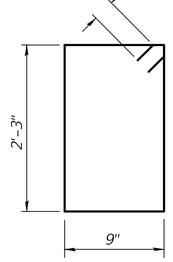


HEADWALL ELEVATION

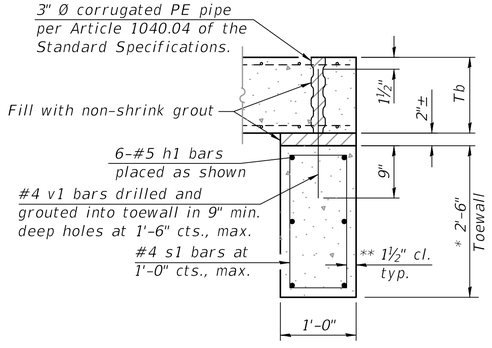
(Allow sidewall reinforcement to extend into end of headwall.)



BAR s



BAR s1



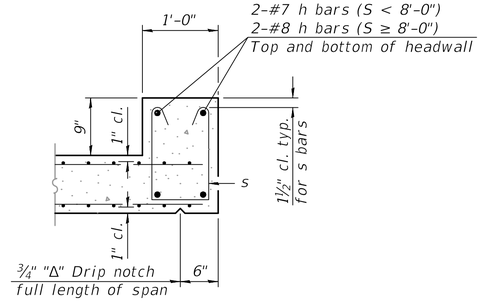
SECTION E–E

TOEWALL CONSTRUCTION SEQUENCE

1. Perform excavation and construct toewall.
2. Backfill according to the applicable paragraphs of Article 502.10 of the Standard Specifications and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling the method.

** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.



SECTION F–F

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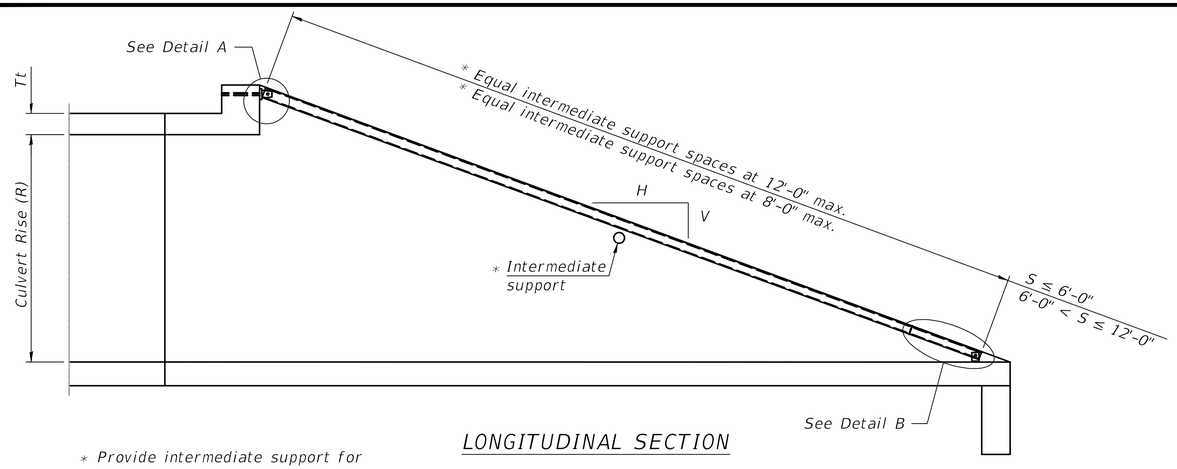
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
CULVERT DETAILS – SOUTH AVE.

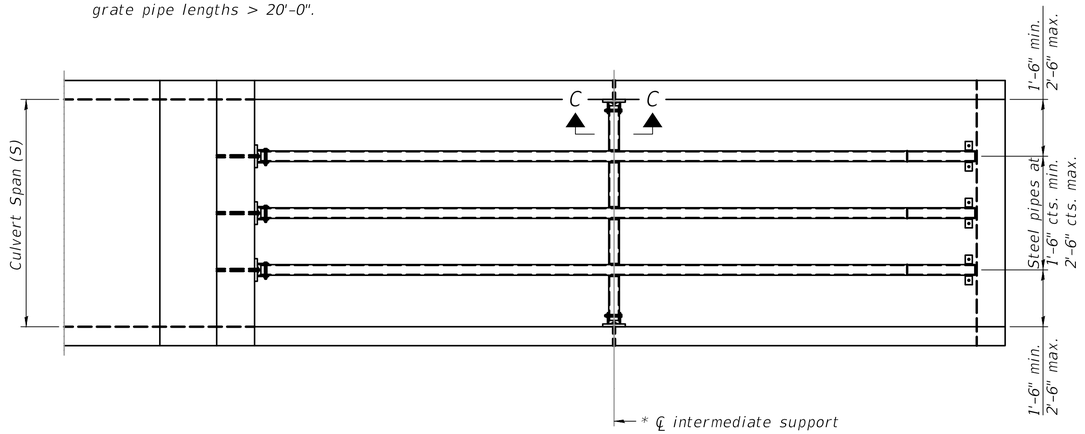
SHEET NO. 62

Xrefs: xgl-1-dh01; xs-Culvert Details-01

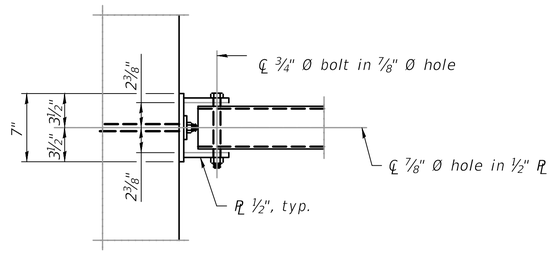


LONGITUDINAL SECTION

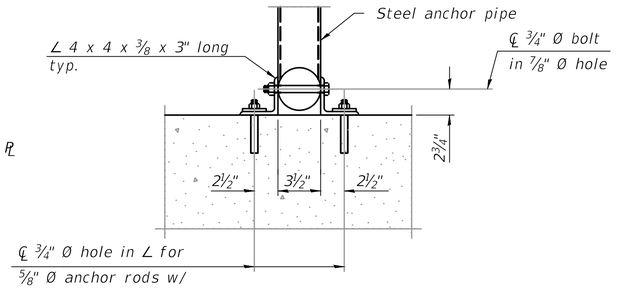
* Provide intermediate support for grate pipe lengths > 20'-0".



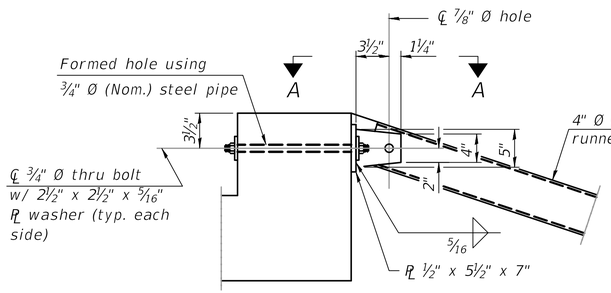
PLAN VIEW



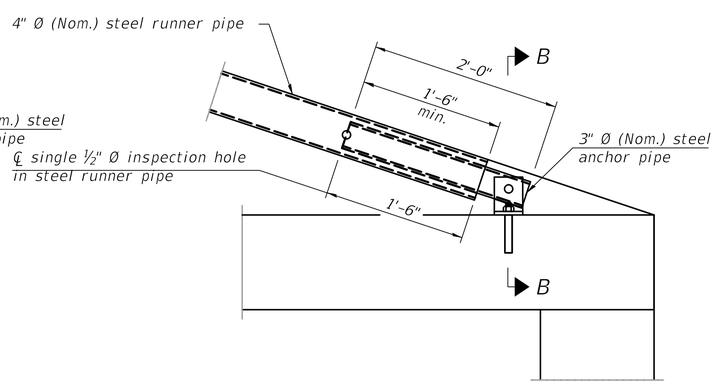
VIEW A-A



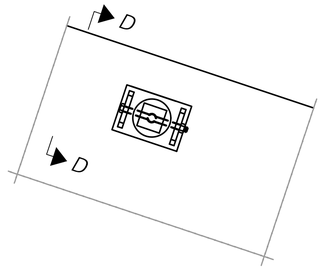
SECTION B-B



DETAIL A

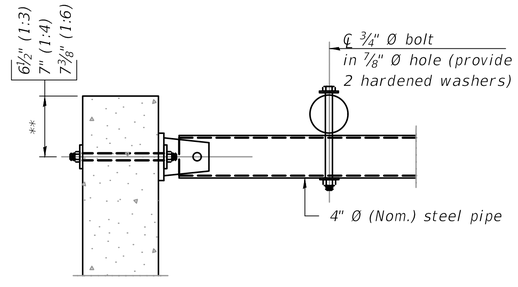


DETAIL B



VIEW C-C

(See Detail A for dimensions and details not shown.)



SECTION D-D

** Measured perpendicular to top of culvert wall. In addition, formed hole shall be located a minimum of 6" measured horizontally from any vertical joints necessary for construction of the culvert end section.

PIPE-GRATE SCHEDULE FOR BOX CULVERT END SECTIONS

Precast Box Culvert Dimensions			1:3.5		
			Main Pipe	Int. Support	Total Length
S (ft)	R (ft)	Tt (in)	No. / Length	No. / Length	of Pipe
12	6	12	4 @ 26'-1"	3 @ 11'-7"	139'-8"

Quantity above is for one traversable pipe grate location. Four locations required.

GENERAL NOTES

The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be 1½" unless noted otherwise.

This standard shall only be used on concrete end sections not skewed more than ±15 degrees with roadway.

The Contractor may install the thru bolts using drilling and grouting in lieu of providing a formed hole using steel pipe. Installation shall be in accordance with Article 509.06 using a method that results in the annulus surrounding the bolt being completed filled with adhesive. The method of drilling shall not result in spalled concrete at the exit face. Epoxy grouted thru bolts shall be snug tightened followed by an additional ⅓ turn on the interior nut at final installation. Cost included with Traversable Pipe Grate.

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CAD FILE:	J:\2017\170818\CAD\Dwgs\S\59-63 CULVERT DETAILS - SOUTH AVE..dwg		

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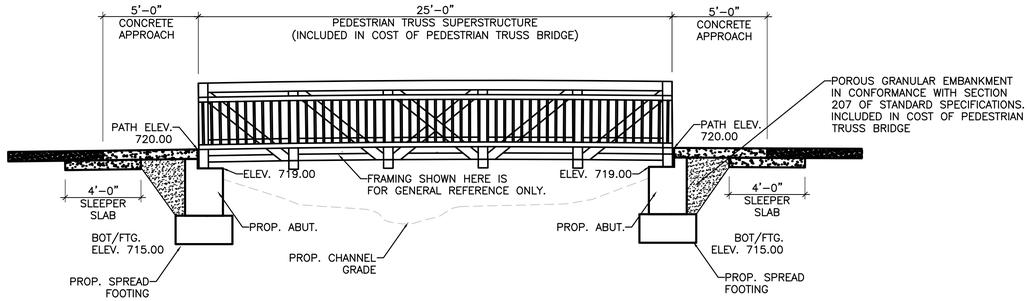
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
CULVERT DETAILS - SOUTH AVE.

SHEET NO.
63

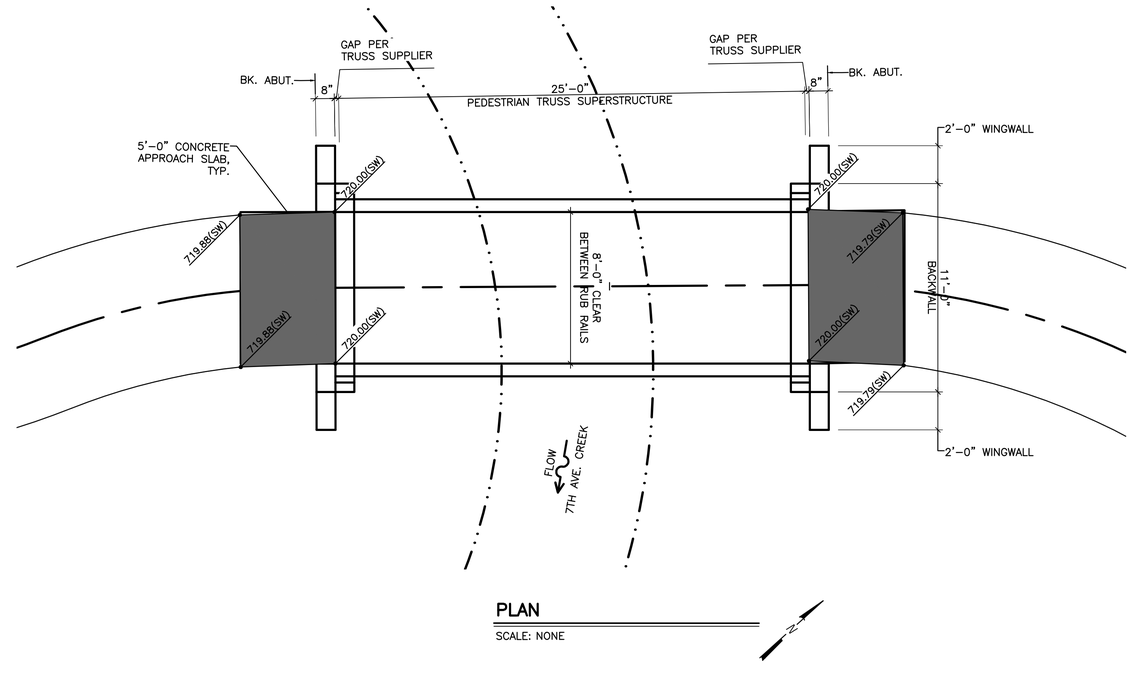
Xrefs: xgt-1-dh01; xs-Culvert Details-01



ELEVATION

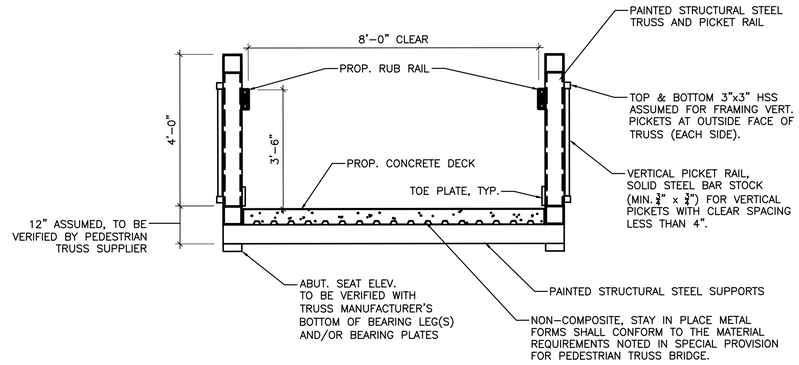
SCALE: NONE

PROP. REINFORCED CONCRETE ABUTMENTS, WINGWALLS, APPROACH SLABS, AND SLEEPER SLABS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 503 AND 508 OF THE STANDARD SPECIFICATIONS FOR CONCRETE AND EPOXY COATED REINFORCEMENT (RESPECTIVELY), AND SHALL BE INCLUDED IN THE UNIT PRICE FOR PEDESTRIAN TRUSS BRIDGE.



PLAN

SCALE: NONE



CROSS SECTION

SCALE: NONE

DESIGN SPECIFICATIONS
2009 AASHTO LRFD GUIDE SPEC FOR DESIGN OF PEDESTRIAN BRIDGES

LOADING 85 PSF
PLUS WIND LOADING SPECIFIED IN PEDESTRIAN TRUSS BRIDGE SPECIAL PROVISIONS

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (REINFORCEMENT)
fy = 50,000 psi (M270 GRADE 50)

ANTICIPATED BRIDGE DESIGN REACTIONS
SUBSTRUCTURE DESIGN SHOWN ASSUMES THAT THE MAXIMUM TOTAL SERVICE LOAD COMBINATION (DEAD + LIVE + WIND LOADS) FOR THE FULLY CONSTRUCTED PEDESTRIAN BRIDGE WILL NOT EXCEED 45 KIPS TOTAL REACTION AT EACH ABUTMENT.

PEDESTRIAN BRIDGE BILL OF MATERIALS

ITEM	UNIT	QUANTITY
PEDESTRIAN TRUSS BRIDGE	LSUM	1

SEE PEDESTRIAN TRUSS BRIDGE SPECIAL PROVISION FOR EXAMPLE PHOTOS OF BRIDGE STYLE, TYPE AND COLOR THAT IS EXPECTED TO BE FURNISHED BY BRIDGE SUPPLIER.

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0 1"
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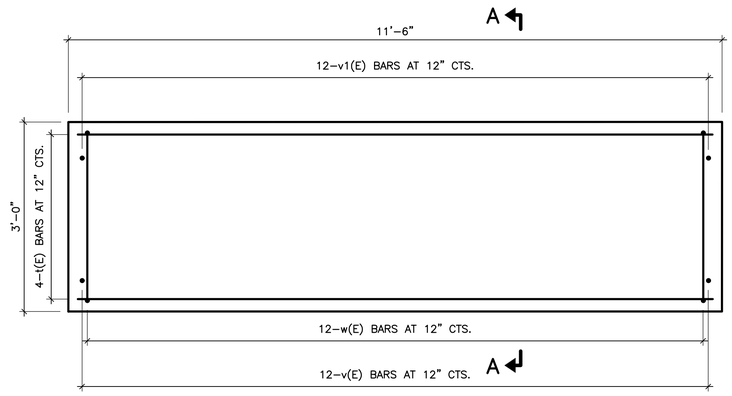
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

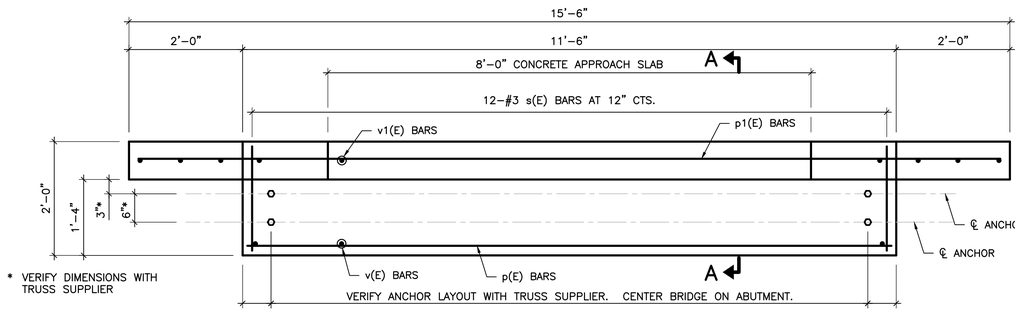
SHEETS
GENERAL PLAN AND ELEVATION
PEDESTRIAN BRIDGE

SHEET NO.
64

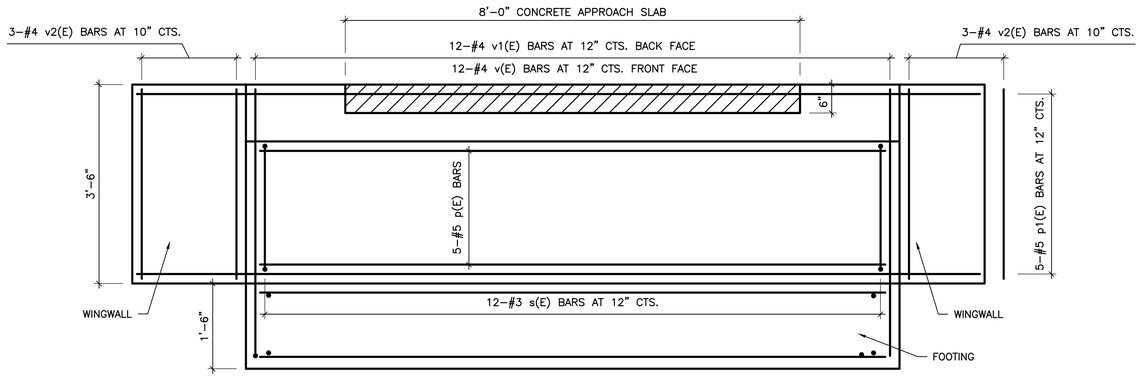
Xrefs: xs-ped bridge details; xs-ped bridge plan; xgt-1-dh01; xc-1-algn; xc-1-dsgn



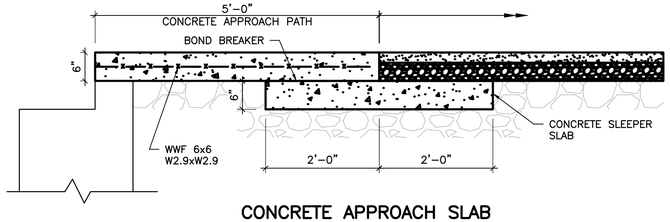
PLAN – ABUTMENT FOOTING



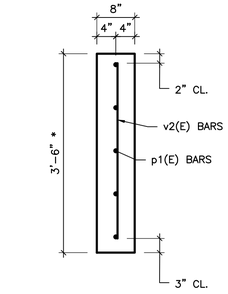
PLAN – TOP OF ABUTMENT



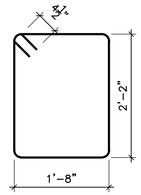
ELEVATION VIEW AT ABUTMENT



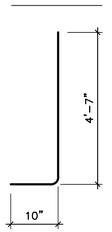
CONCRETE APPROACH SLAB



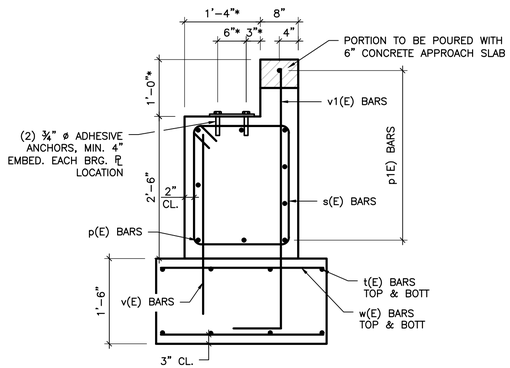
SECTION THRU WINGWALL



BAR s(E)



BAR v1(E)



SECTION A–A THRU ABUTMENT

ABUTMENT BILL OF BARS

NOTE: QUANTITIES INCLUDE BOTH ABUTMENTS

BAR	NO.	SIZE	LENGTH	SHAPE
p (E)	10	#5	10'- 8"	———
p1 (E)	10	#5	14'- 8"	———
s (E)	24	#4	8'- 5"	▯
t (E)	8	#4	10'- 6"	———
v (E)	24	#4	3'- 7"	———
v1 (E)	24	#4	5'- 5"	———
v2 (E)	12	#4	3'- 1"	———
w (E)	24	#5	2'- 6"	———
STRUCTURE EXCAVATION			CU. YD.	31.1
CONCRETE STRUCTURES			CU. YD.	12.0
REINFORCEMENT BARS, EPOXY COATED			POUND	600
CONCRETE SEALER			SQ. FT.	62
POROUS GRANULAR BACKFILL			CU. YD.	18

– ALL LISTED QUANTITIES ABOVE SHALL BE INCLUDED IN THE LUMP SUM UNIT PRICE FOR PEDESTRIAN TRUSS BRIDGE.
– CONCRETE STRUCTURES QUANTITY INCLUDES CONCRETE APPROACH SLAB & SLEEPER.
– REQUIRED SOIL BEARING CAPACITY FOR THE ABUTMENT FOOTING = 2,500 PSF. CONTRACTOR SHALL HAVE A GEOTECHNICAL ENGINEER FIELD VERIFY ADEQUACY OF SOILS FOR THE PROPOSED FOUNDATION.

* VERIFY DIMENSIONS WITH THE SUPPLIER OF THE PEDESTRIAN TRUSS SUPERSTRUCTURE

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Xrefs: xg1-1-dh01; xs-ped bridge details

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APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/26/2020 3:43:32 PM
CAD FILE: J:\2017\170818\CAD\Dwgs\S\65 PEDESTRIAN BRIDGE DETAILS.dwg
BAR IS ONE INCH ON OFFICIAL DRAWINGS. IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

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420 N. FRONT STREET, SUITE 100
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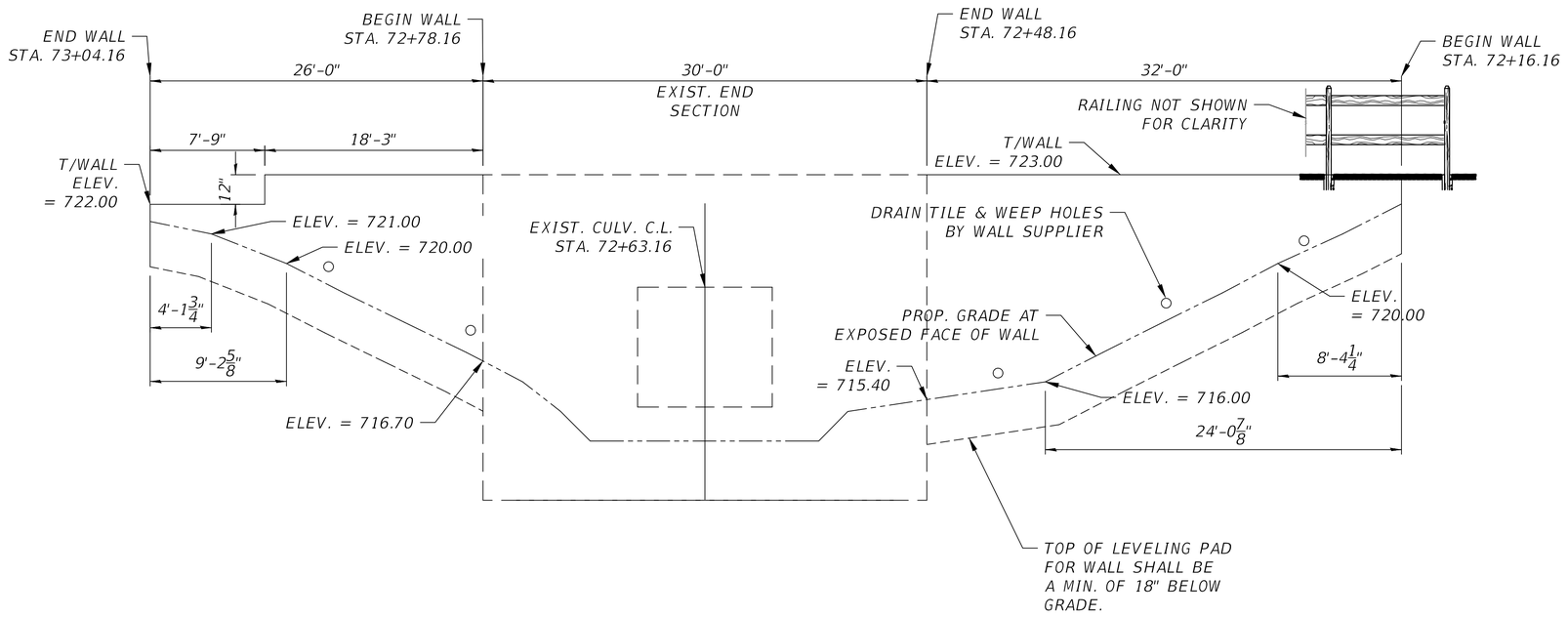
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

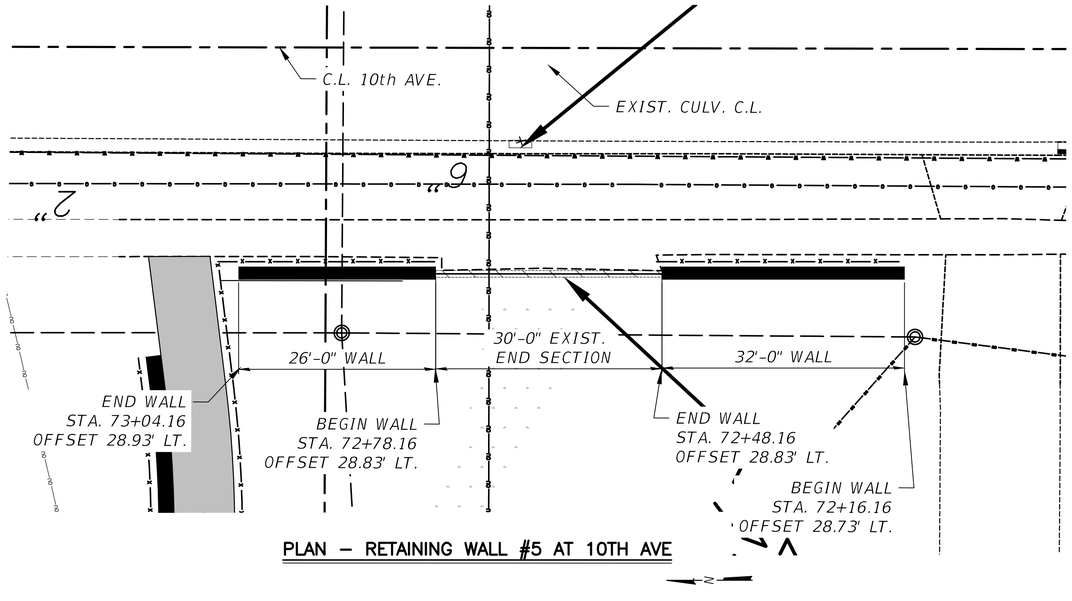
SHEETS
PEDESTRIAN BRIDGE DETAILS

SHEET NO.
65

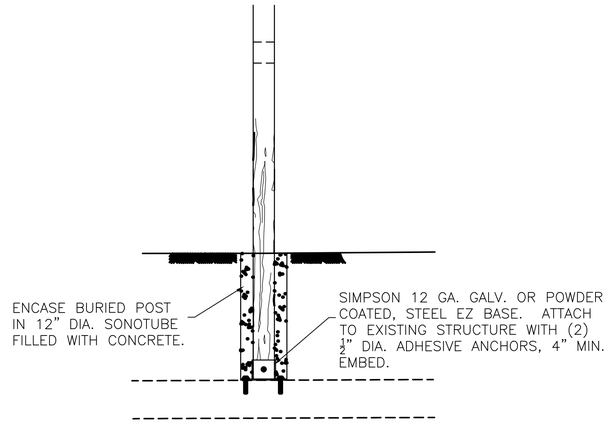


ELEVATION – RETAINING WALL #5 AT 10TH AVE

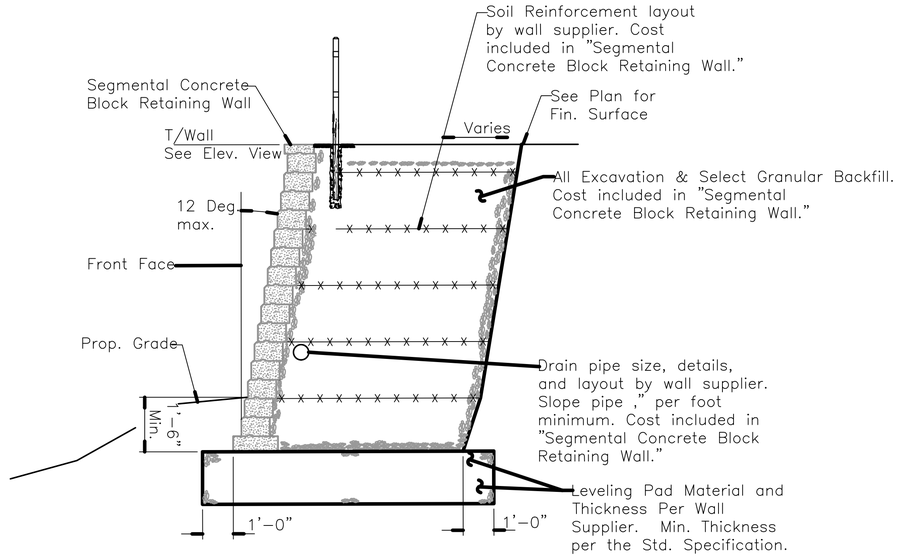
LOOKING EAST



PLAN – RETAINING WALL #5 AT 10TH AVE



FENCE POST ANCHOR TO CULVERT WHERE COVER < 3'–6"



TYPICAL SECTION – SEGMENTAL CONCRETE BLOCK RETAINING WALL

ALL LOCATIONS

ITEM	UNIT	TOTAL
Segmental Concrete Block Retaining Wall #5	Sq. Ft.	234

Excavation required for installation of Segmental Concrete Block Wall shall be done in accordance with the applicable portions of Section 502 of the Standard Specifications and will be included in SEGMENTAL CONCRETE BLOCK RETAINING WALL.
The color of the wall shall be approved by the Owner's Representative.

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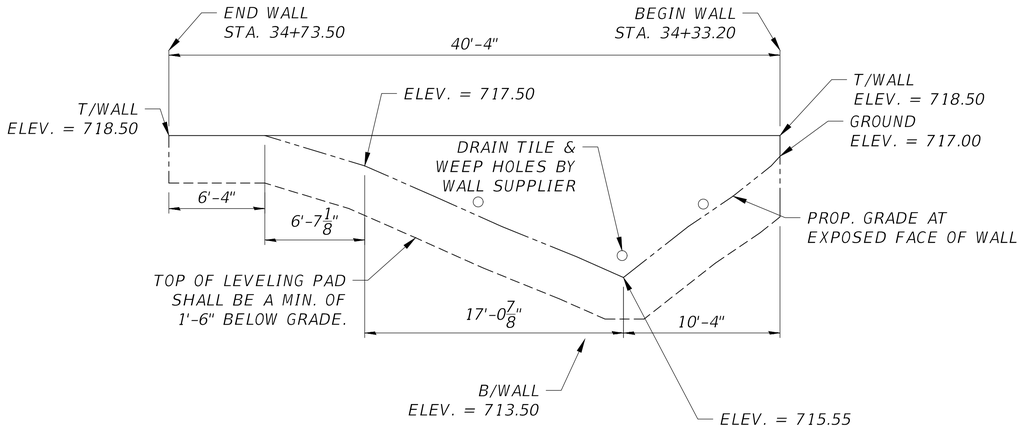
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

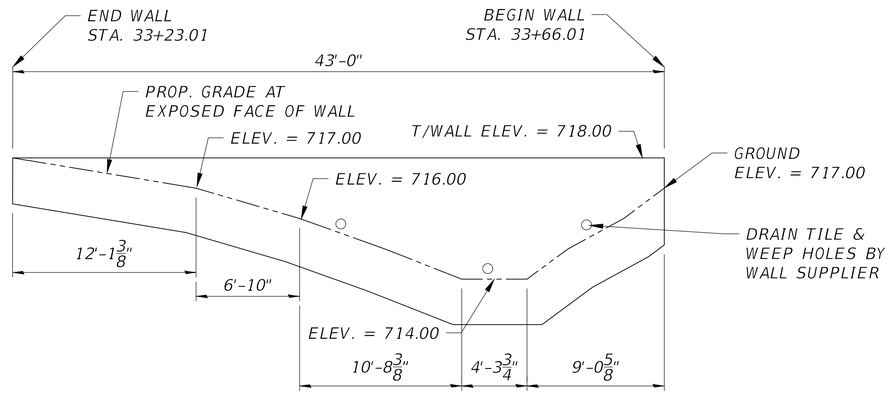
SHEETS
GENERAL PLAN AND ELEVATION
10TH AVE RETAINING WALL

SHEET NO.
66

Xrefs: xg1-1-dn01; 170818-xc-drainage; 170818-xc-utilities; 170818-xv-survey; xc-1-algn; xc-1-dsgn; xs-Retwall Plan; xs-Culvert Plan; 090212_wd01_block_wall_section_gpby



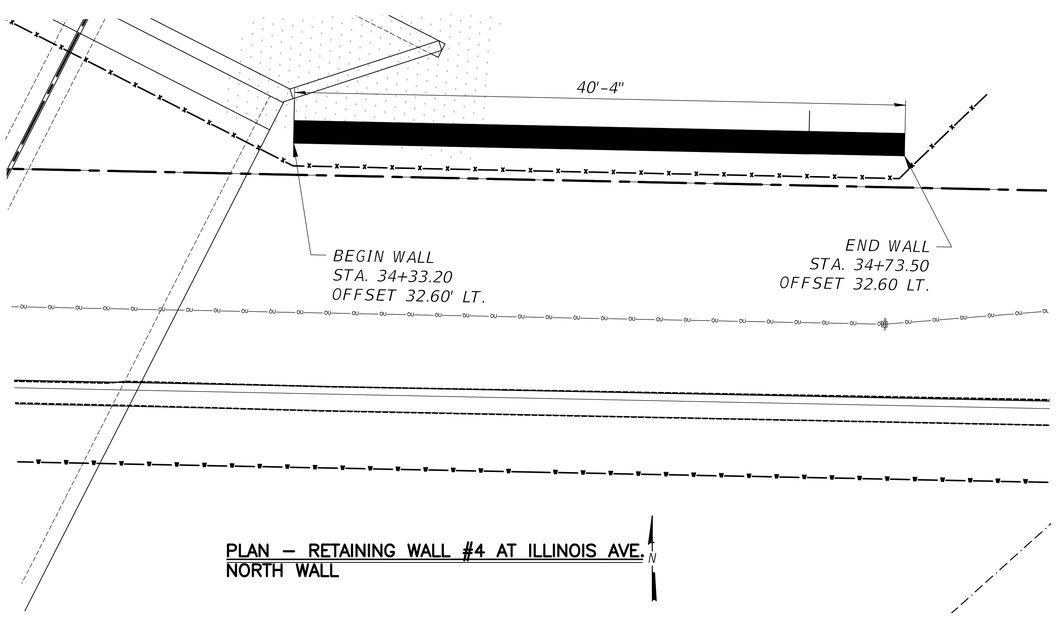
ELEVATION – RETAINING WALL #4 AT ILLINOIS AVE.
NORTH WALL LOOKING SOUTH



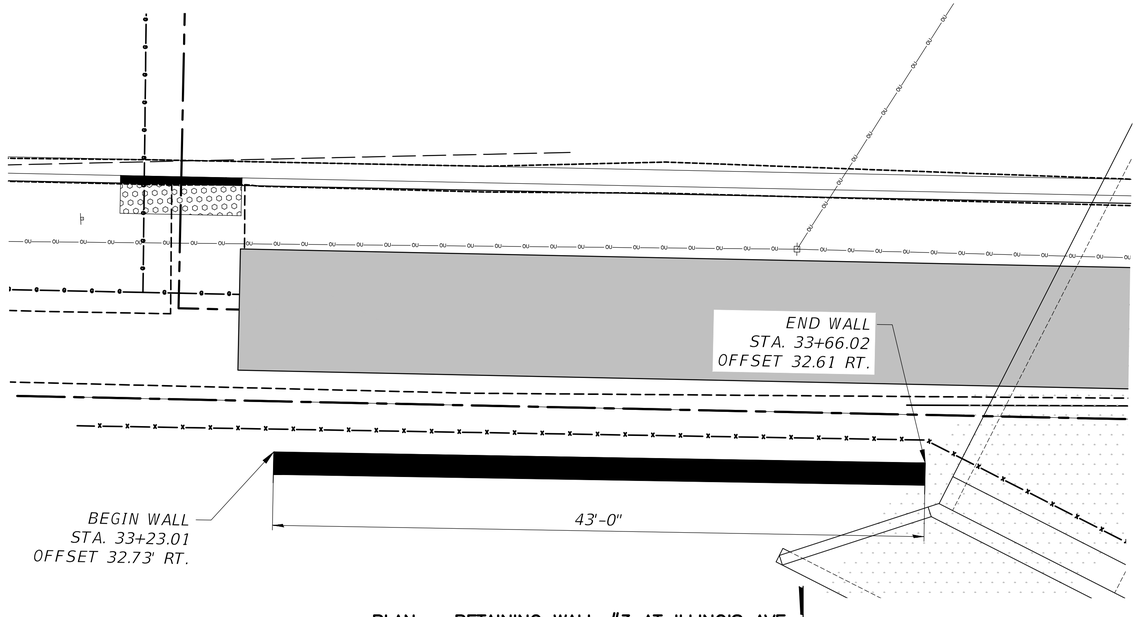
ELEVATION – RETAINING WALL #3 AT ILLINOIS AVE.
SOUTH WALL LOOKING NORTH

ITEM	UNIT	TOTAL
Segmental Concrete Block Retaining Wall #3	Sq. Ft.	88
Segmental Concrete Block Retaining Wall #4	Sq. Ft.	80

Excavation required for installation of Segmental Concrete Block Wall shall be done in accordance with the applicable portions of Section 502 of the Standard Specifications and will be included in SEGMENTAL CONCRETE BLOCK RETAINING WALL.
The color of the wall shall be approved by the Owner's Representative.



PLAN – RETAINING WALL #4 AT ILLINOIS AVE.
NORTH WALL



PLAN – RETAINING WALL #3 AT ILLINOIS AVE.
SOUTH WALL

FOR BIDDING ONLY

DRAWN BY: CTK JOB DATE: OCTOBER 28, 2020
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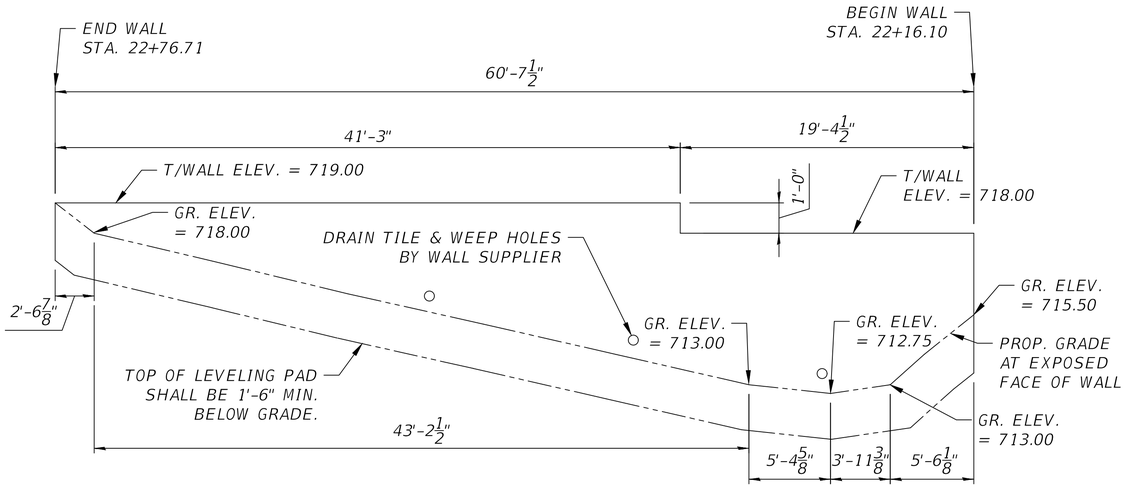
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
GENERAL PLAN AND ELEVATION
ILLINOIS AVE RETAINING WALL

SHEET NO.
67

Xrefs: xg1-1-dh01; 170818-xc-drainage; 170818-xc-utilities; 170818-xv-survey; xc-1-algn; xc-1-dsgn; xs-Retwall Plan; xs-Culvert Plan

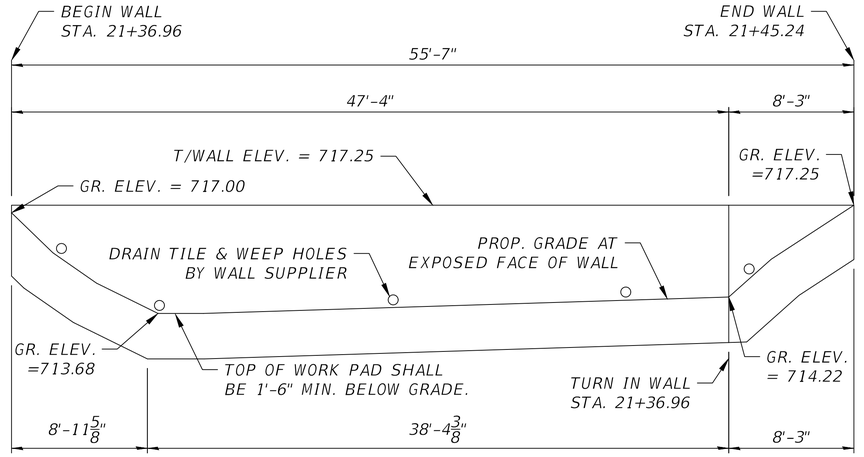


ELEVATION – RETAINING WALL #2 AT INDIANA AVE.
NORTH WALL

LOOKING SOUTH

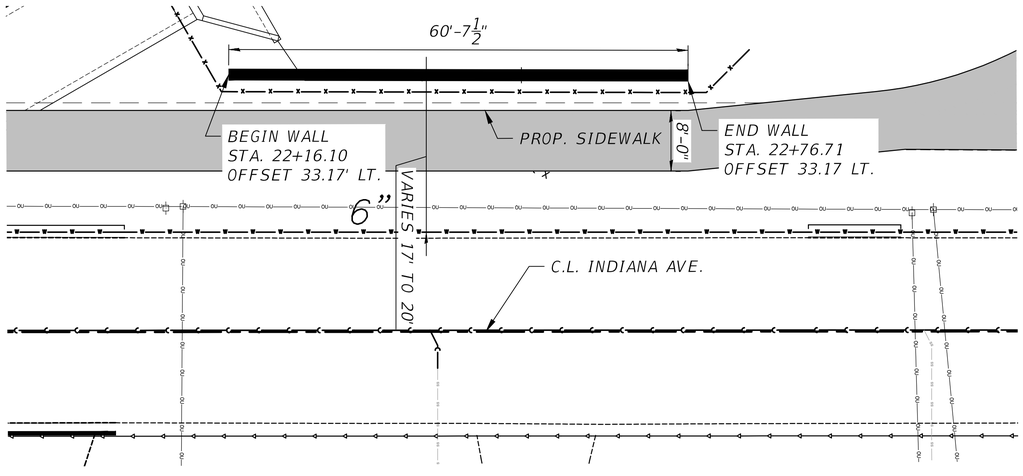
ITEM	UNIT	TOTAL
Segmental Concrete Block Retaining Wall #1	Sq. Ft.	157
Segmental Concrete Block Retaining Wall #2	Sq. Ft.	217

Excavation required for installation of Segmental Concrete Block Wall shall be done in accordance with the applicable portions of Section 502 of the Standard Specifications and will be included in SEGMENTAL CONCRETE BLOCK RETAINING WALL.
The color of the wall shall be approved by the Owner's Representative.

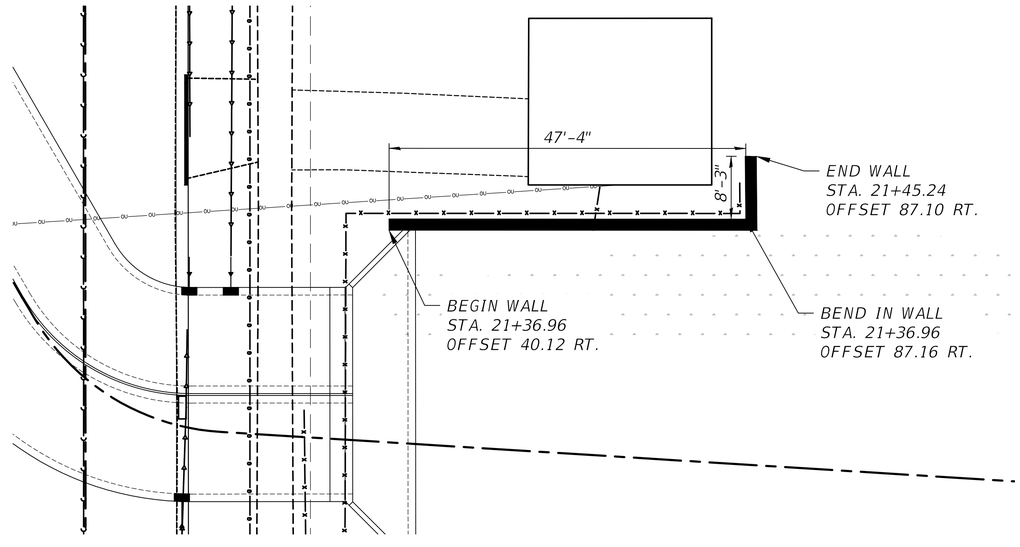


ELEVATION – RETAINING WALL #1 AT INDIANA AVE.
SOUTH WALL

LOOKING EAST



PLAN – RETAINING WALL #2 AT INDIANA AVE.
NORTH WALL



PLAN – RETAINING WALL #1 AT INDIANA AVE.
SOUTH WALL

FOR BIDDING ONLY

Xrefs: xgt-1-dh01; 170818-xc-drainage; 170818-xc-utilities; 170818-xv-survey; xs-Culvert Plan; xc-1-algn; xs-Retwall Plan; xc-1-dsgn; xc-1-surf-curve-end

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CAD DATE:	10/26/2020 9:02:29 AM		
CAD FILE:	J:\2017\170818\CAD\Dwgs\S\68 GENERAL PLAN AND ELEVATION INDIANA AVE RETAINING WALL.dwg		

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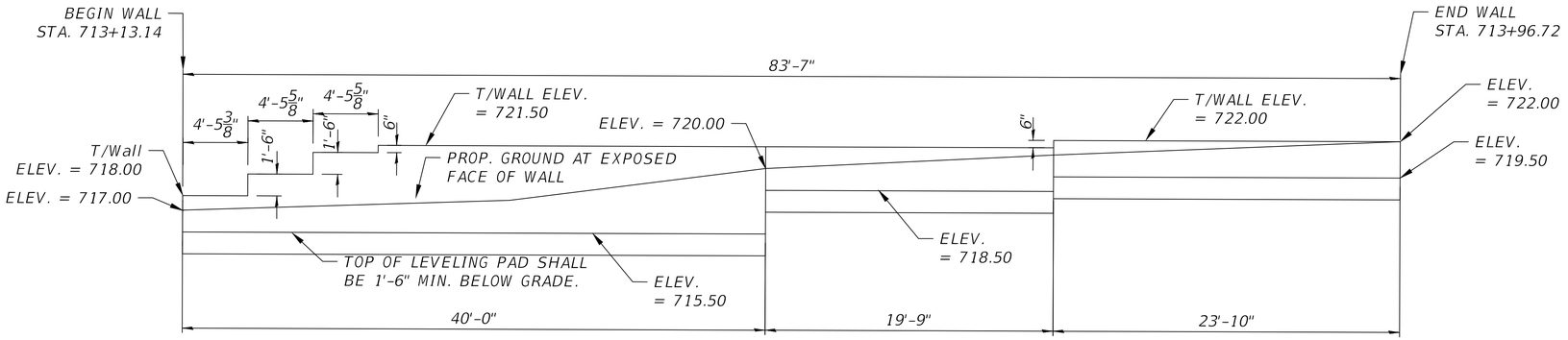
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

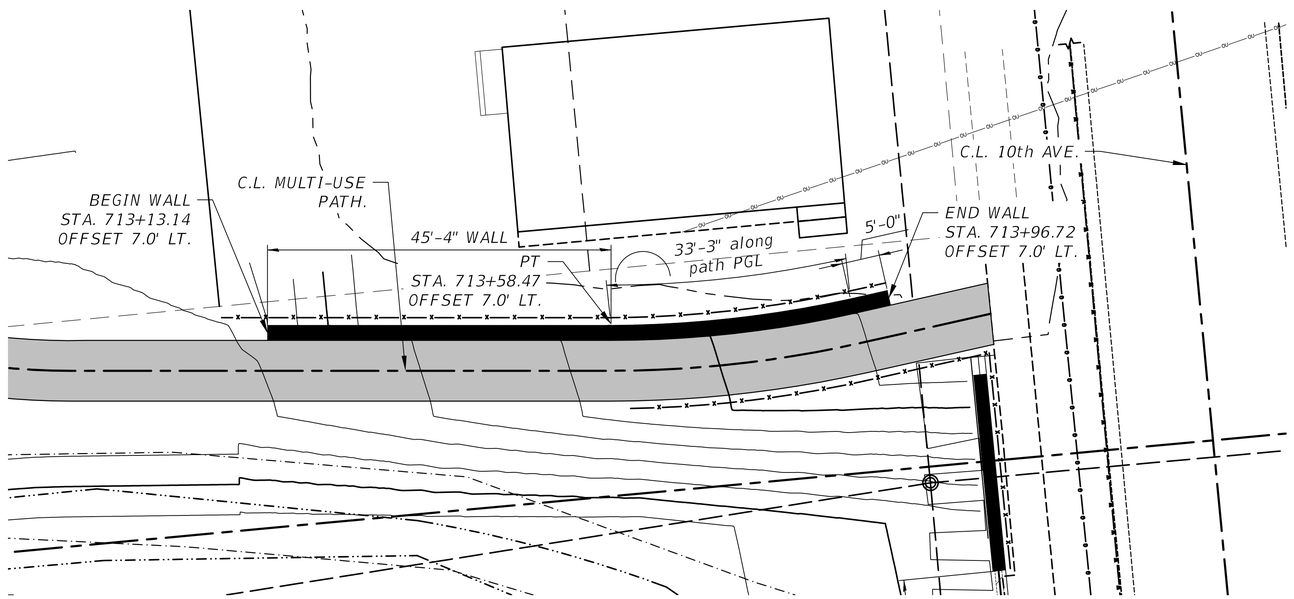
SHEETS
GENERAL PLAN AND ELEVATION
INDIANA AVE RETAINING WALL

SHEET NO.
68



ELEVATION – RETAINING WALL #6 AT MULTI–USE PATH

LOOKING NORTH



PLAN – RETAINING WALL # 6 AT MULTI–USE PATH

ITEM	UNIT	TOTAL
Segmental Concrete Block Retaining Wall #6	Sq. Ft.	144

Excavation required for installation of Segmental Concrete Block Wall shall be done in accordance with the applicable portions of Section 502 of the Standard Specifications and will be included in SEGMENTAL CONCRETE BLOCK RETAINING WALL.
The color of the wall shall be approved by the Owner's Representative.

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CAD FILE: J:\2017\170818\CAD\Dwgs\S\69 GENERAL PLAN AND ELEVATION BIKE PATH RETAINING WALL.dwg

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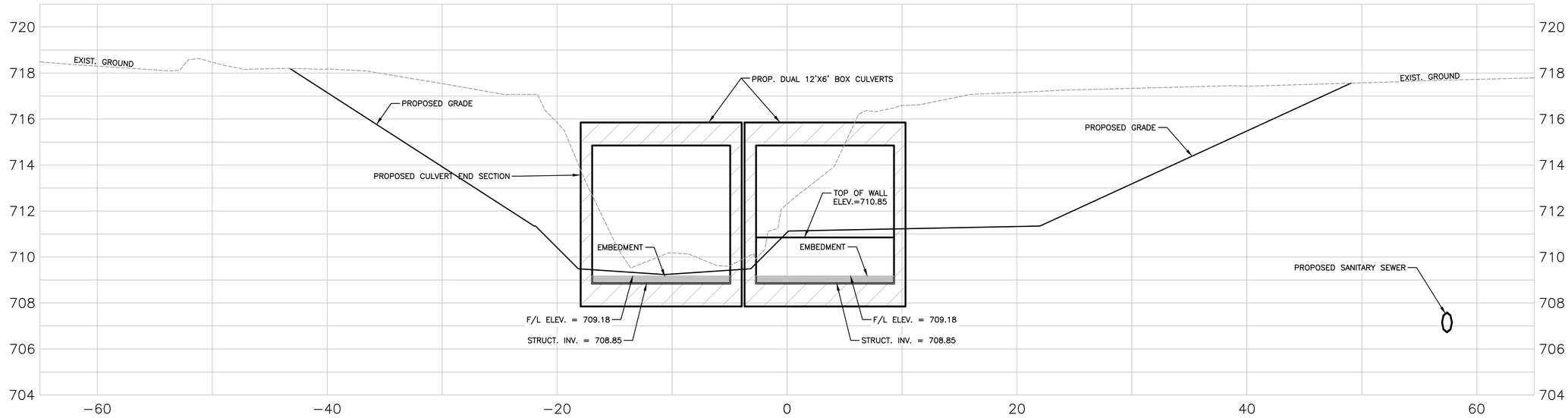
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
GENERAL PLAN AND ELEVATION
MULTI–USE PATH RETAINING WALL

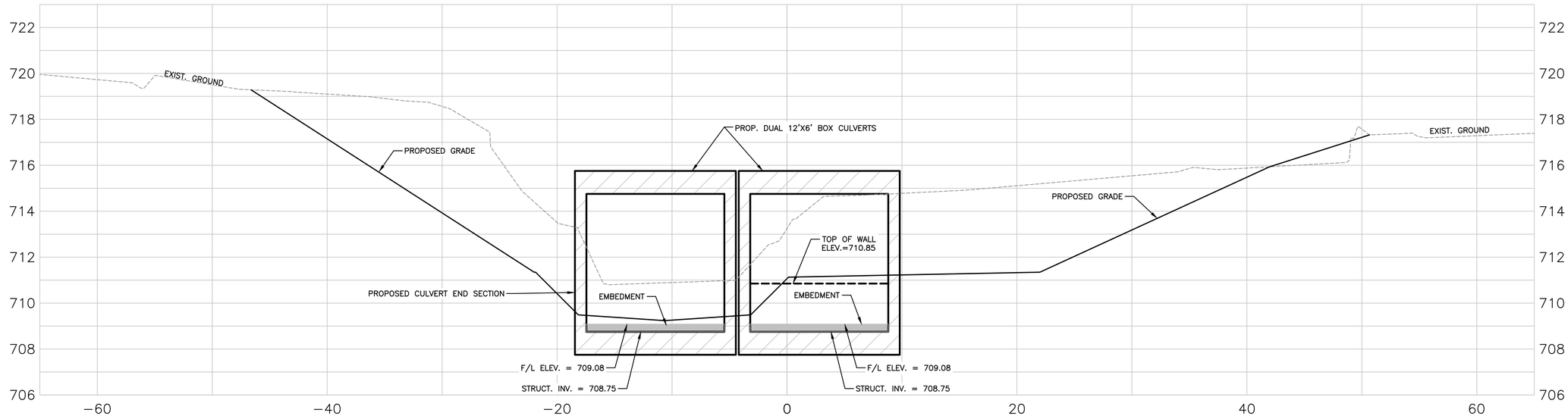
SHEET NO. 69

105+25



2 7TH AVENUE CREEK
SOUTH AVE.: UPSTREAM SECTION
SCALE: N.T.S.

104+64



1 7TH AVENUE CREEK
SOUTH AVE.: DOWNSTREAM SECTION
SCALE: N.T.S.

FOR BIDDING ONLY

Xrefs: xgt-1-dh01

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APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/26/2020 3:46:06 PM
CAD FILE: J:\2017\170818\CAD\Dwgs\C\70-74 CULVERT XSECT DETAILS.dwg

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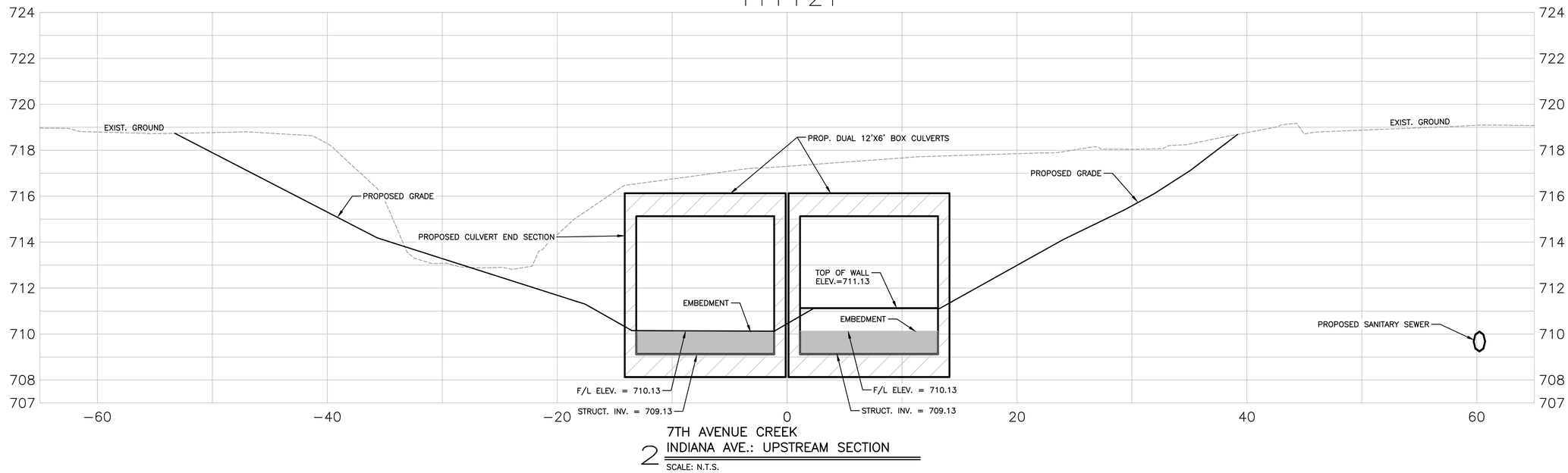
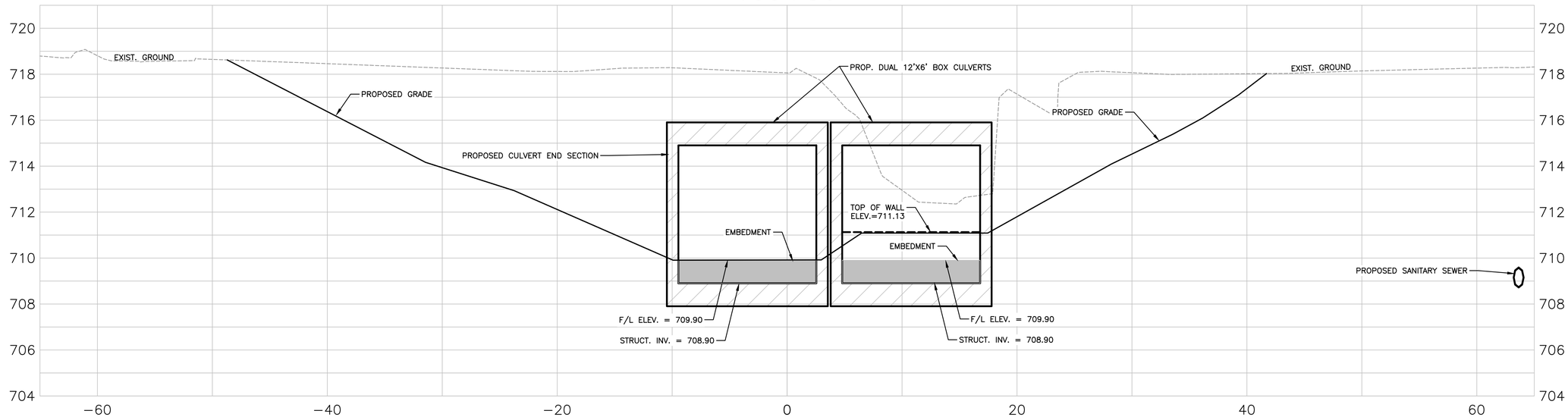
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
CULVERT TYPICAL DETAILS

SHEET NO.
70



7TH AVENUE CREEK
2 INDIANA AVE.: UPSTREAM SECTION
SCALE: N.T.S.



7TH AVENUE CREEK
1 INDIANA AVE.: DOWNSTREAM SECTION
SCALE: N.T.S.

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0 1"
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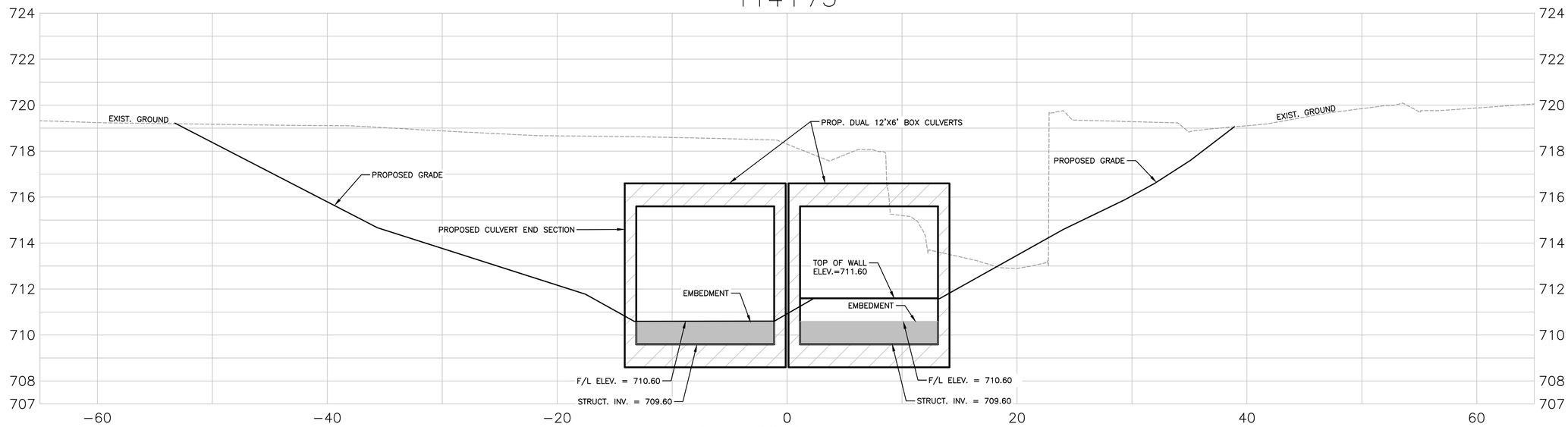
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

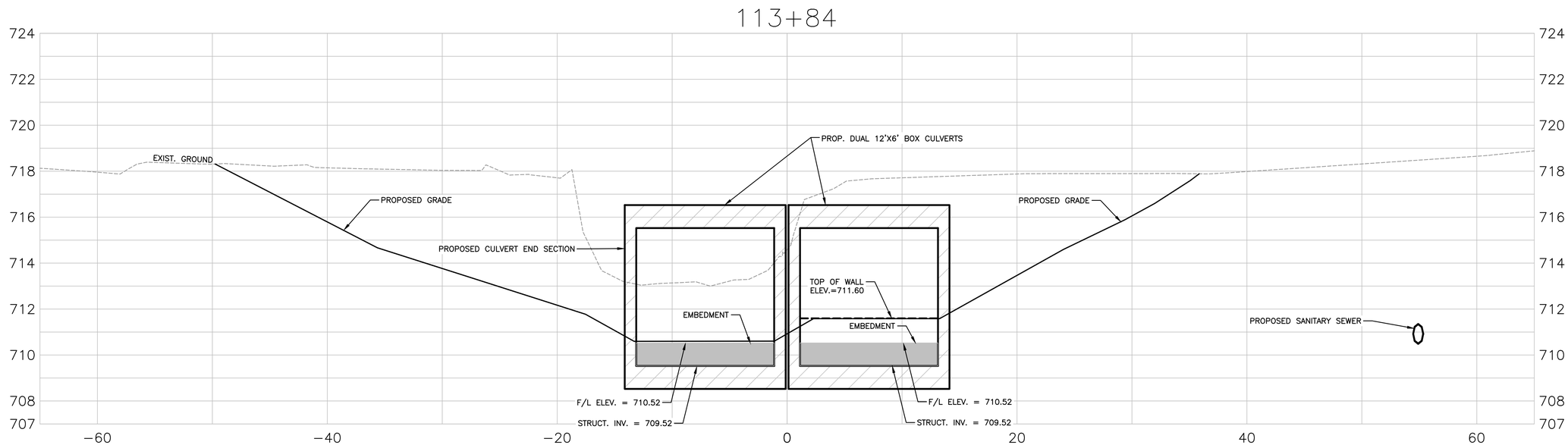
SHEETS
CULVERT TYPICAL DETAILS

SHEET NO.
71

Xrefs: xgl-1-dh01



2 7TH AVENUE CREEK
ILLINOIS AVE.: UPSTREAM SECTION
SCALE: N.T.S.



1 7TH AVENUE CREEK
ILLINOIS AVE.: DOWNSTREAM SECTION
SCALE: N.T.S.

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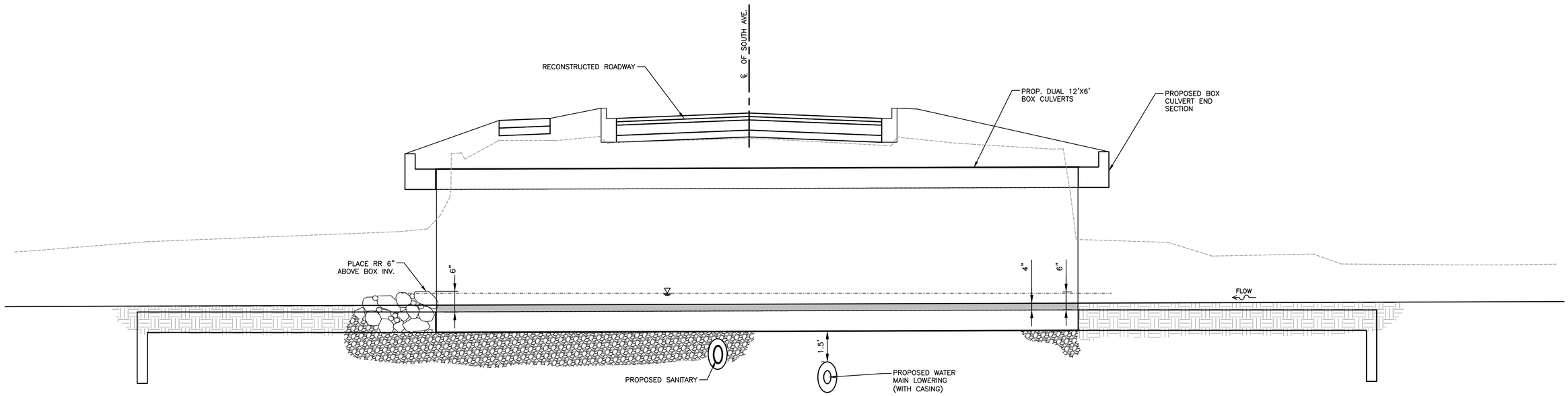
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
CULVERT TYPICAL DETAILS

SHEET NO.
72

Xrefs: xgl-1-dh01



1 7TH AVENUE CREEK
SOUTH AVE.: CULVERT SUMP
SCALE: N.T.S.

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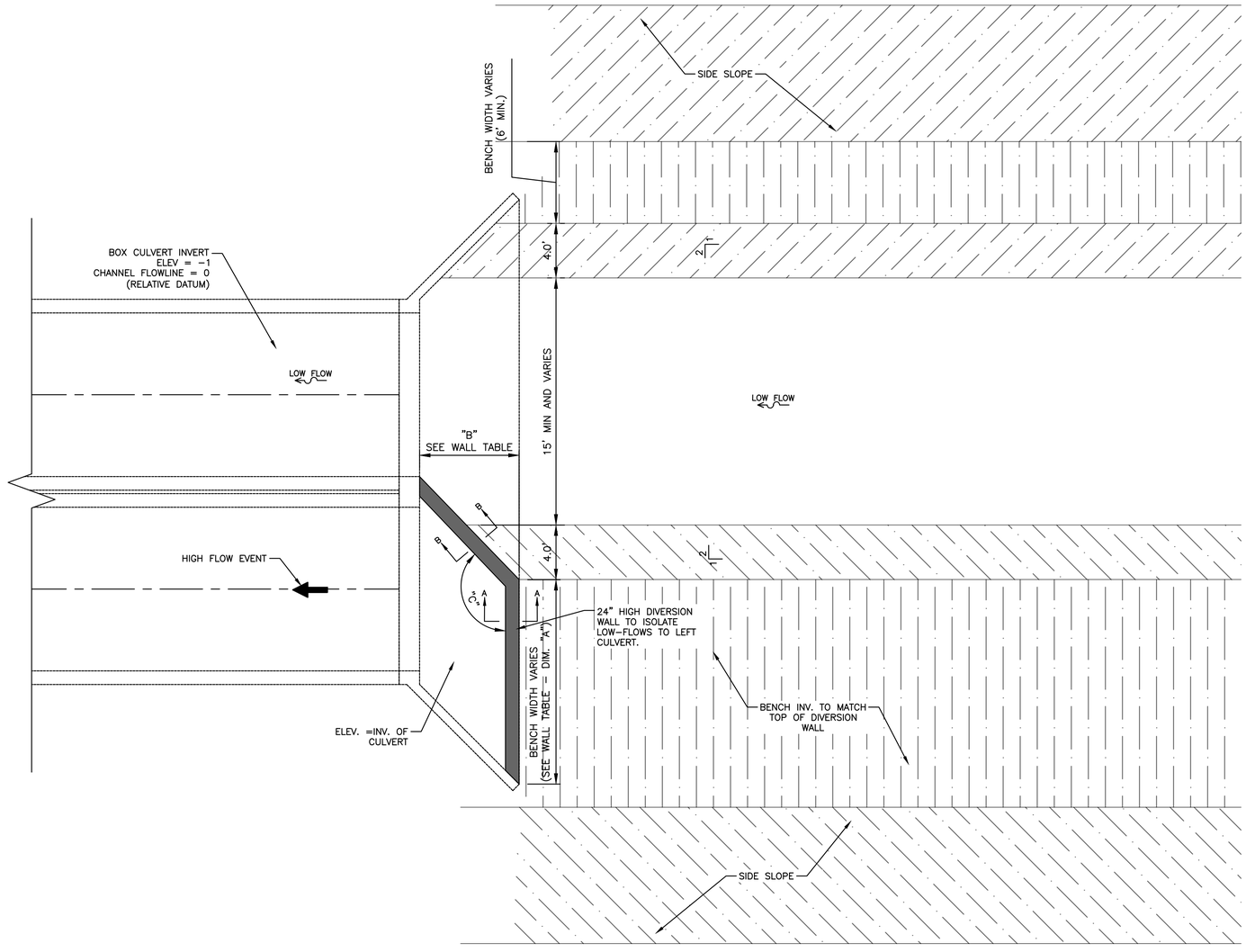
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
SOUTH AVE. – CULVERT SUMP

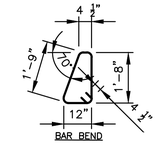
SHEET NO.
73

Xrefs: xgl-1-dh01

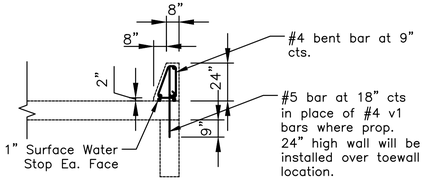


* LOW FLOW CHANNEL LOCATIONS VARY (SEE CULVERT PLAN AND PROFILES FOR LOCATIONS)

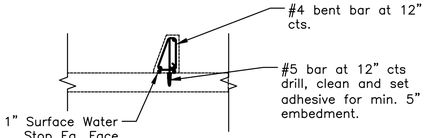
1 7TH AVENUE CREEK
CULVERT DIVERSION WALL
SCALE: N.T.S.



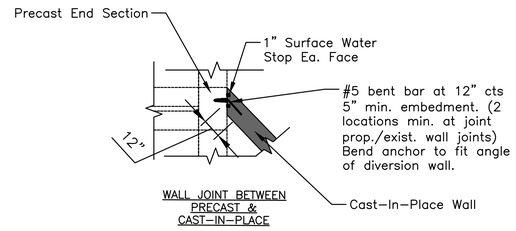
BAR BEND



SECTION A-A



SECTION B-B



WALL JOINT BETWEEN PRECAST & CAST-IN-PLACE

NOTES:
COST OF WATERSTOPS INCLUDED IN COST OF DIVERSION WALL.
CONCRETE FOR DIVERSION WALL TO BE IDOT CLASS SI.
REINFORCEMENT QUANTITY TO BE DETERMINED BY CONTRACTOR FOR DIVERSION WALL AT EACH END SECTION LOCATION NOTED IN PLAN (3 LOCATIONS TOTAL).
DIVERSION WALLS SHALL BE MEASURED AND PAID FOR AS EACH AND SHALL INCLUDE ALL LABOR, MATERIAL TO INSTALL.

DIVERSION WALL TABLE

LOCATION	"A"	"B"	"C"
ILLINOIS	15'-0"	7'-3⅜"	135°
INDIANA	15'-0"	7'-3⅜"	135°

CONTRACTOR SHALL FIELD VERIFY ALL DIVERSION WALL DIMENSIONS AND ANGLES TO MATCH UPPER BENCH WIDTH.

LOCATIONS = UPSTREAM APRON ONLY OF CULVERT LOCATIONS LISTED. ONE SIDE OF APRON ONLY. MATCH SIDE OF CREEK WITH PROP. CHANNEL BENCH LOCATION NOTED IN PLAN.

FOR BIDDING ONLY

Xrefs: xg1-1-dh01

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CAD FILE: J:\2017\170818\CAD\Dwgs\C\70-74 CULVERT XSECT DETAILS.dwg
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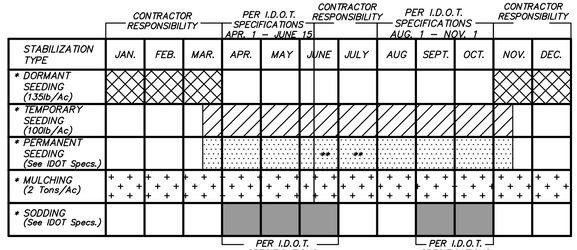
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
CULVERT DIVERSION WALL

SHEET NO.
74

CONTROL MEASURE GROUP	CONTROL MEASURE	KEY	APPL.	CONTROL MEASURE CHARACTERISTICS	TEMP.	PERMNT
VEGETATIVE SOIL COVER	TEMPORARY SEEDING	TS	X	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.	X	
	PERMANENT SEEDING	PS	X	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION, FILTERS SEDIMENT FROM WATER. MAY BE PART OF FINAL LANDSCAPE PLAN.		X
	DORMANT SEEDING	DS	X	SAME AS PERMANENT SEEDING EXCEPT IS DONE DURING DORMANT SEASON. HIGHER RATES OF SEED APPLICATION ARE REQUIRED.	X	
	SODDING	SO	X	QUICK PERMANENT COVER TO CONTROL EROSION. QUICK WAY TO ESTABLISH VEGETATION FILTER STRIP. CAN BE USED ON STEEP SLOPES OR IN DRAINAGEWAYS WHERE SEEDING MAY BE DIFFICULT.		X
	GROUND COVER	GC	X	PROVIDES GROUND COVER, SHRUBS AND TREES IN ADDITION TO PERMANENT VEGETATION. MAY BE USED AS PART OF A FINAL LANDSCAPE PLAN ALONG WITH SHRUBS AND TREES.		X
	RAIN GARDEN	RG		PROVIDES A TYPE OF FUNCTIONAL LANDSCAPING FEATURE DESIGNED TO CONTROL STORMWATER RUNOFF. SEE LANDSCAPING PLANS FOR DETAILS		
NON VEGETATIVE SOIL COVER	MULCHING	M	X	ADDED INSURANCE OF A SUCCESSFUL TEMPORARY OR PERMANENT SEEDING. CONTROLS UNWANTED VEGETATION AND PRESERVES MOISTURE. PROVIDES COVER WHERE VEGETATION CANNOT BE ESTABLISHED.	X	
	AGGREGATE COVER	AG		PROVIDES SOIL COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF-SITE.		
	PAVING	P	X	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.		X
	EROSION BLANKET	EB	X	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING TIME OF YEAR IS INAPPROPRIATE AND IN SLOPED AREAS.	X	
DIVERSIONS	RIDGE DIVERSION	RD		TYPICALLY USED ABOVE SLOPES. USED WHERE AN EXCESS OF SOIL IS AVAILABLE.		
	CHANNEL DIVERSION	CD		TYPICALLY USED AT TOP OR BASE OF SLOPES. USED WHEN EXCESS SOIL IS NOT AVAILABLE.		
	COMBINATION DIVERSION	CBD		TYPICALLY USED ANYWHERE ONA SLOPE. SOIL TAKEN OUT OF CHANNEL IS USED TO BUILD THE RIDGE.		
WATERWAYS	CURB AND GUTTER	CG	X	SPECIAL CASE OF DIVERSION USED IN CONJUNCTION WITH A STREET TO DIVERT WATER FROM AN AREA NEEDING PROTECTION.		X
	BENCHES	B		SPECIAL CASE OF DIVERSION CONSTRUCTED WHEN WORKING ON CUT SLOPES TO SHORTEN LENGTH OF SLOPE AND ADD SLOPE STABILITY.		
	BARE CHANNEL	BC	X	PROVIDES MEANS OF CONVEYING RUNOFF TO DESIRED LOCATION. MAY BE USED TO DRAIN DEPRESSIONAL AREAS. ONLY APPLICABLE WHEN VELOCITY OF FLOW IS VERY LOW.		X
	VEGETATIVE CHANNEL	VC	X	PROVIDED ADDED STABILITY TO CHANNEL. USED WHEN VELOCITY OF FLOW IS NOT EXTREMELY FAST.		X
	LINED CHANNEL	LC	X	USED WHEN VEGETATION WILL NOT PROTECT THE CHANNEL AGAINST HIGH VELOCITIES OF FLOW OR WHERE VEGETATION CANNOT BE ESTABLISHED.		X
	DITCH CHECKS	DC	X	PROVIDES AN ENERGY DISSIPATOR ALONG A LENGTHY CHANNEL TO REDUCE VELOCITY OF STORMWATER	X	
ENCLOSED DRAINAGE	STORM SEWER	ST	X	CAN BE USED TO CONVEY SEDIMENT LADEN WATER TO SEDIMENT BASIN OR IN CONJUNCTION WITH A WATERWAY.		X
	UNDERDRAIN	UD		USED TO LOWER WATER TABLE AND INTERCEPT GROUNDWATER FOR BETTER VEGETATION GROWTH AND SLOPE STABILITY. USED TO CARRY BASE FLOW IN WATERWAYS AND TO DEWATER SEDIMENT BASINS.		
SPILLWAYS	STRAIGHT PIPE SPILLWAY	SS		USED FOR RELATIVELY SMALL VERTICAL DROPS AND SMALL FLOWS OF WATER		
	DROP INLET PIPE SPILLWAY	DIS		SAME AS PIPE SPILLWAY EXCEPT LARGER FLOWS AND LARGE VERTICAL DROPS CAN BE ACCOMMODATED.		
	WEIR SPILLWAY	W		USED FOR RELATIVELY SMALL VERTICAL DROPS AND FLOWS MUCH GREATER THAN PIPE STRUCTURES.		
	BOX INLET WEIR SPILLWAY	BS		SAME AS WEIR SPILLWAY EXCEPT LARGER FLOWS CAN BE ACCOMMODATED BECAUSE OF LOWER WEIR LENGTH.		
OUTLETS	LINED APRON	LA		PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURES.		
	STONE RIP RAP	RR	X	USED AS AN ENERGY DISSAPATOR AT OUTLET STRUCTURES TO REDUCE VELOCITIES		X
SEDIMENT BASINS	EMBANKMENT SEDIMENT BASIN	ES		USED WHERE TOPOGRAPHY LENDS ITSELF TO CONSTRUCTING A DAM AND EARTH FILL IS AVAILABLE.		
	EXCAVATED SEDIMENT BASIN	XS		USED WHERE EMBANKMENT COULD CAUSE A HAZARD DOWNSTREAM IN CASE OF FAILURE AND WHEN EXCESS EARTH FILL IS NOT AVAILABLE.		
	COMBINATION SEDIMENT BASIN	SB	X	USED WHEN TOPOGRAPHY IS SUITABLE BUT ADDITIONAL CAPACITY IS NEEDED.		X
SEDIMENT FILTERS	BARRIER FILTER (SILT FENCE)	BF	X	A TEMPORARY BARRIER OF ENTRENCHED GEOTEXTILE FABRIC (FILTER FABRIC) STRETCHED ACROSS AND ATTACHED TO SUPPORTING POSTS USED TO INTERCEPT SEDIMENT LADEN RUNOFF FROM SMALL DRAINAGE AREAS OF DISTURBED SOIL.	X	
	VEGETATIVE FILTER	VF		USED ALONG DRAINAGEWAYS OR PROPERTY LINES TO FILTER SEDIMENT FROM RUNOFF. SIZE MUST BE INCREASED IN PROPORTION TO DRAINAGE AREA.		
	INLET PROTECTION	IP	X	USED FOR FILTERING SEDIMENT WITHIN GRASS AREAS BEFORE WATER ENTERS THE STORM SEWER	X	
	FILTER BASKET	FB	X	USED FOR FILTERING SEDIMENT WITHIN THE ROADWAY BEFORE ENTERING THE STORM SEWER	X	
MUD AND DUST CONTROL	STABILIZED CONST. ENTRANCE	SE	X	A STABILIZED PAD OF AGGREGATE UNDERLAIN WITH FILTER FABRIC LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT-OF-WAY, STREET, ALLEY, SIDEWALK, OR PARKING AREA TO PREVENT MUD FROM BEING PICKED UP AND CARRIED OFF-SITE.	X	
	CONSTRUCTION ROAD STABILIZATION	CRS		THE STABILIZATION OF TEMPORARY CONSTRUCTION ACCESS ROUTES, SUBDIVISION ROADS, ON-SITE VEHICLE TRANSPORTATION ROUTES, AND CONSTRUCTION PARKING AREAS WITH STONE IMMEDIATELY AFTER GRADING TO PREVENT MUD FROM BEING PICKED UP AND CARRIED OFF-SITE.		
	DUST AND TRAFFIC CONTROL	DT	X	CONTROL OF DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS	X	
MISC.	EXPLORATORY TRENCH	ET	X	EXPLORATORY TRENCH EXCAVATION FOR EXISTING UTILITIES	X	
	CONCRETE WASHOUT	WO	X	PREVENTS THE DISCHARGE OF POLLUTANTS TO STORMWATER FROM CONCRETE WASTE IN A DESIGNATED WASHOUT AREA (CONCRETE WASHOUT BMP)		X

SEEDING / SODDING CHART



* SEE I.D.O.T SPECIFICATIONS FOR INSTALLATION AND APPLICATION REQUIREMENTS

** SUPPLEMENTAL WATERING MAYBE REQUIRED. (SEE I.D.O.T. SPECIFICATIONS FOR REQUIREMENTS)

EROSION CONTROL NOTES:

- No land disturbing activities shall not commence until approval to do so has been received by governing authorities, in addition to, no land clearing or grading shall begin until all perimeter erosion and sediment control measures have been installed. (Including storm water pollution prevention plan per the development criteria.)
- The general contractor shall strictly adhere to the storm water pollution prevention plan (swppp) during construction operations.
- All topsoil shall be stripped prior to filling
- All exposed areas shall be seeded as specified within 14 days of final grading.
- Should construction stop for longer than 14 days, the site shall be seeded as specified.
- Sediment and erosion control measures shall be inspected at least once every seven (7) days and within 24 hours of a rainfall exceeding 0.5 inches during a 24-hour period or more frequently if required by governing NPDES general permit. All maintenance required by inspection shall commence within 24 hours and be completed within 48 hours of report.
- This plan shall not be considered all inclusive as the general contractor shall take all necessary precautions to prevent soil sediment from leaving the site.
- General contractor shall comply with all state and local ordinances that apply.
- Additional erosion and sediment control measures will be installed if deemed necessary by on site inspection.
- If installation of storm drainage system should be interrupted by weather or nightfall, the pipe ends shall be covered with filter fabric.
- General contractor shall be responsible to take whatever means necessary to establish permanent soil stabilization.
- All sedimentation and erosion control regulations shall be adhered to per the City of St. Charles's requirements
- All erosion and sediment control practices shall be maintained and repaired as needed to ensure effective performance of the required erosion control measures.
- All erosion and sediment control work shall conform to the I.D.O.T. Manual for, standards and procedures for erosion control.
- All construction will adhere to the requirements set forth in the iepa's new construction site activities national pollutant discharge elimination system (npdes) storm water permit.
- All roadways shall be cleaned at the end of each construction day.
- All disturbed areas shall be stabilized within 7 days of active disturbance.
- All erosion control measures shall be disposed of within 30 days of final stabilization of the site.
- Ground cover for 5:1 slopes or greater shall be established as soon as possible.
- All disturbed areas to to restored w/ 4" topsoil respread & seeding/sodding unless otherwise noted on plans
- Silt filter fabric shall be placed between frame and grate until vegetation is established. (see detail)
- Utilize excelsior blanket on all slopes of 5:1 or greater.
  *Seeding per I.D.O.T. Manual, section 251,standard specifications for road and bridge construction, (latest edition
  *Class 3 type – slope mixture
  *Mulch/hydroseed per I.D.O.T. Manual, section 251, standard specifications for road and bridge construction, (latest edition
  *Mulch/hydroseed method 2, procedure 3
- No dimensions shall be assumed by scaling.
- No known drain tiles are present on the proposed development, if tiles are encountered during construction please notify the engineer immediately.
- No part of the proposed project is located within a flood hazard 10–100yr area a flood hazard area
- Excess material shall be placed at specified location unless otherwise specified by owner and approved by engineer for use of lot grading. Stockpiles shall be surrounded with filter fence and shall be seeded per I.D.O.T. Manual (latest addition) (temporary) if left more than 14 working days.
- General contractor shall notify all utility companies having underground utilities on site or in right-of-way prior to excavation. Contractor shall contact utility locating company and locate all utilities prior to grading start.

PHASING NOTES:

SEQUENCE OF MAJOR ACTIVITIES – AS APPLICABLE TO PROJECT

The Contractor will be responsible for implementing the following erosion control and storm water management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows (refer to the Erosion and Sediment Control Plan Sheet contained in this SWPPP for details and refer to the Suggested Phasing Plan in the design drawings for construction sequencing):

A. A pre-construction meeting shall be held by the Site Project Manager and the Operator's Engineer prior to land disturbing activities.
B. Install perimeter silt fences and inlet protection in the locations shown on the plan sheets.
C. Implement erosion control measures around the existing storm sewer to prevent sedimentation from infiltrating into the storm sewer system as shown on the plan sheets.
D. Construct temporary construction exits at locations shown on the Erosion Control plan sheets.
E. Begin clearing and grubbing operations. Clearing and grubbing shall be done only in areas where earthwork will be performed and only in areas where construction measures are planned to commence within 7 days after clearing and grubbing.
F. Disturbed areas of the site where Construction Activity has ceased for more than 7 days shall be temporarily seeded and watered.
G. Install suggested maintenance of traffic measures.
H. Commence utility construction installation.
I. Construct water main down Bluff City Blvd. Perform Testing, chlorination prior to main connections to existing water main. Finalize water main installation connections to exist. water main.
J. Install water service connections.
K. Perform shut down of existing water main for removal or abandonment.
L. Construct sanitary sewer main and sanitary sewer service connections.
M. Construct proposed gutter inlets, area inlets, storm sewer manholes and proposed storm sewer.
N. Install inlet / outlet protection around the constructed storm sewer to prevent sedimentation from infiltrating into the storm sewer system as shown on the Erosion Control plan sheets.
O. Finalize pavement subgrade preparation.
P. Construct all curb and gutter. Inlet protection may be removed temporarily for this construction.
Q. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.
R. Install base material as required for pavement.
S. Carry out final grading and seeding, sodding and planting, including rolled erosion control products where shown on the Erosion Control plan sheets.
T. Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.
U. Remove temporary construction exits

A schedule for implementation for the activities identified above is included as Form C-3 of the SWPPP.

FAILURE TO COMPLY:

In the event a notice of violation is issued on this project, any and all fines will be the sole responsibility of the contractor. The owner, owner's representative, or other owner's agents will not participate in any payment or reimbursement for fines and will not authorize time extensions due to delays in project progress for work stoppage required to remedy the violations.

SPECIFICATIONS AND GENERAL NOTES:

NOTES:

This plan has been prepared to comply with the provisions of the NPDES Permit Number issued by the Illinois Environmental Protection Agency for Stormwater Discharges from Construction Site Activities.

1. Site Description.

a. The Overall project area is tributary to the Fox River.

b. The following is a description of the construction activity which is the subject of this plan:
The proposed improvements consists of construction of water main, sanitary sewer & storm sewer installation, curb and gutter replacement, sidewalk replacement, pavement milling, patching and reconstruction, clearing, grubbing, grading and restoration to existing conditions. The construction activities for site improvements will include: site clearing, grubbing, mass grading, pavement construction, installation of utilities including storm sewers, soil erosion and sedimentation control measures, as a minimum.

c. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site such as grubbing, excavation, and grading:

The sequence of the construction activities may be as follows:
See Sequence of major activities on this sheet.

d. The total area of the construction site is estimated to be 5.1± acres.

The total area if the site that is estimated to be disturbed by excavation, grading, or other activities, is 5.1± acres.

2. Controls.

This section of the plan addresses the various controls that will be implemented for each of the major construction activities described in 1.b above. For each measure discussed, the contractors will be responsible for its implementation as indicated. Each such contractor has signed the required certification on forms which are attached to, and are a part of, this plan.

a. Erosion and Sediment Controls.

(i) STABILIZATION PRACTICES. Provided below is a description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Except as provided in 2.a. (i) (A) and 2.b. stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portions of the site where construction activity will not occur for a period of 21 or more calendar days.

(A) Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

The following interim and permanent stabilization practices, as a minimum will be implemented to stabilize the disturbed area of the site:

1 Temporary Seeding
2 Permanent seeding
3 Erosion Blanket
4 Barrier filter
5 Inlet protection
6 Outlet protection
7 Vegetative filter
8 Stabilized construction entrance
9 Dust & Traffic Control

(ii) STRUCTURAL PRACTICES. Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. The installation of these devices may be subject to Section 404 of the Clean Water Act.

1. Storm sewer system
2. Vegetated drainage swales
3. Permanent seeding
4. Outlet protection
5. Filter fabric
6. Inlet protection

b. Erosion Control. It shall be the Contractor's responsibility to provide adequate erosion control on the job site. The following erosion control sequence shall be adhered to:

See Sequence of major activities on this sheet.

Any siltation of conduits, structures, or ditches shall be cleaned and maintained by the Contractor, on a weekly basis, until the seeding has taken hold. All washouts, gullies, etc. will be regraded and reseeded by the Contractor, at the Contractor's expense.

The Contractor's responsibility for erosion control shall extend throughout the construction process. The Contractor shall be responsible for cleanup of paved surfaces within and adjacent to the project.

All erosion control practices shall be in compliance with the latest revision of the "Standard Specifications for Road and Bridge Construction," by the Illinois Department of Transportation and with "Standards and Specifications for Soil Erosion and Sedimentation Control" as published by the Illinois Environmental Protection Agency.

If a topsoil stockpile location is provided and approved by the County, Contractor shall establish erosion control measures for the stockpile if it is to remain in place for more than three days. In addition, barrier filter fence shall enclose topsoil stockpile location with exception of truck access during construction hours.

c. Stormwater Management.

(i) Provided below is a description of measures that will be installed during the construction process to control pollutants in stormwater discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

The practices selected for implantation were determined on the basis of the technical guidance contained in IEPA's Standard Specifications for Soil Erosion and Sedimentation Control, and other ordinances listed in the Specifications.

The stormwater pollutant control measures shall include:

1. Silt filter fence
2. Drainage swales
3. Storm sewers
4. Rip-rap outlet protection
5. Straw bale inlet protection
6. Retention/Detention ponds

(ii) Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., maintenance of hydrologic conditions, such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Stormwater Management Control includes
1 Stone Riprap
2 Filter Fabric
3 Vegetative channels.
4 Outlet protection using Gabion mattress.
5 Inlet protection.

3. Other Controls.

(i) Waste Disposal. The solid waste materials including trash, construction debris, excess construction materials, machinery, tools and other items will be collected and disposed off-site by the contractor. The contractor is responsible to acquire any permit required for such disposal. Burning on the site will not be permitted. No solid materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.

(ii) The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

The sanitary sewage will be discharged to the proposed sanitary sewer constructed per IEPA and local standards.

a. Approved State or Local Plans.

The management practices, controls and other provisions contained in this plan are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Standards and Specifications for Soil and Erosion and Sediment Control (Latest revision), Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Plan, and the Municipal Subdivision Ordinance. Requirements specified in sediment and erosion control site plans or site permits or stormwater management or site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI to be authorized to discharge under this permit, incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

b. Maintenance.

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, vegetation, erosion and sediment control measures and other protective measures identified in this plan and Standard Specifications.

Stabilized construction entrance: The entrance shall be maintained to prevent tracking of sediment onto public streets. This will be done by top dressing with additional stones, remove and replace top layer of stones or washing the entrance. The sediment washed on the public right-of-way will be removed immediately.

Vegetative erosion control measures: The vegetative growth of temporary and permanent seeding, sodding, vegetative channels, vegetative filter, etc. shall be maintained periodically and supply adequate watering and fertilizer. The vegetative cover shall be removed and reseeded as necessary.

Sedimentation basins/traps: The sediments shall be removed when 25 percent of the total original capacity is occupied by the sediment. In no case shall the sediment be built up to more that 1 foot below the crest elevation. At this stage, the basin shall be cleaned out to restore its original volume.

Silt filter fence: The damaged silt filter fence shall be restored to meet the standards or removed and replaced as needed.

Straw bale barrier filters: The straw bale barrier filter shall be inspected frequently and shall be repaired or removed and replaced as needed.

Rip-rap outlet protection: It shall be inspected after high flows for any scour beneath the Rip-rap or for stones that have been dislodged. It shall be repaired immediately.
Inlet Protection: Shall be inspected and emptied of silt if filled as required.

Disturbed areas shall be stabilized with temporary or permanent measures within 7 calendar days following the end of active disturbance, or redisturbance, consistent with the following criteria:

(i) Appropriate temporary or permanent stabilization measures shall include seeding, mulching, sodding, and/or non-vegitative measures.
(ii) Areas having slopes greater than 12 percent shall be stabilized with sod, mat, or blanket in combination with seeding or equivalent.

Soil storage piles containing more than 10 cu. yds. of material shall not be located with a downslope drainage length less than 25 feet to a roadway or drainage channel. Filter barriers, including straw bales, filter fence, or equivalent, shall be installed immediately on the down slope of the piles.

4. Inspections.

The Owner, or Owner's representative shall provide qualified personnel to inspect disturbed areas of the construction site which have not been finally stabilized, structural control measures and location where vehicles enter or exit the site. Such inspections shall be conducted at least once every seven (7) calendar days within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall.

a. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking.

b. Based on the results of the inspection, the description of potential pollutant sources identified in section 1 above and pollution prevention measures identified in section 2 above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within 7 calendar days following the inspection.

c. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of this stormwater pollution prevention plan and actions taken in accordance with section 4.b. shall be made and retained as part of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI.G of the general permit.

d. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer or Resident Technician shall complete and file an "Incidence of Noncompliance" (ION) report for the identified violation. The Resident Engineer or Resident Technician shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit. The report of noncompliance shall be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Compliance Assurance Section
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794–9276

5. Non-Stormwater Discharges.
Except for flows from fire fighting activities, sources of non-stormwater that may be combined with stormwater discharges associated with the industrial activity addressed in this plan, are described below:

a. Water main flushing
b. Fire hydrant flushing
c. Watering for dust control
d. Irrigation drainage for vegetative growth for seeding, etc..

The pollution prevention measures, as described below, will be implemented for non-stormwater components of the discharge:

The fire hydrant and water main shall not be flushed directly on the exposed area of sub grade of the pavement. Hoses shall be used to direct the flow into the storm sewer system, if available.

The erosion due to irrigation of seeding shall be considered minor.

Contractor to provide the above non-stormwater discharged control to the standard specification required by the City or the approved equal.

6. Monitoring and Management Plan
A three-year maintenance and monitoring plan is required after installation of native landscaping.
See Project Specifications for details.

CONTRACTOR'S AND SUBCONTRACTOR'S CERTIFICATE

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

CONTRACTOR'S PRINTED NAME AND SIGNATURE _____ CERTIFICATION DATE _____

CONTRACTOR TITLE _____ TELEPHONE NUMBER _____

CONTRACTOR COMPANY NAME AND ADDRESS _____

SUBCONTRACTOR'S NAME AND SIGNATURE _____ CERTIFICATION DATE _____

SUBCONTRACTOR'S TITLE _____ TELEPHONE NUMBER _____

SUBCONTRACTOR'S COMPANY NAME AND ADDRESS _____

SITE ADDRESS _____

IEPA: ILR10 PERMIT #_____

FOR BIDDING ONLY

DRAWN BY: CTK JOB DATE: OCTOBER 28, 2020
APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/22/2020 3:03:54 PM
CAD FILE: J:\2017\170818\CAD\Dwgs\C\75-76 EROSION CONTROL SPECS.dwg

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
ILLINOIS DESIGN FIRM # 184.001322
420 N. FRONT STREET, SUITE 100
McHENRY, ILLINOIS 60050
PHONE: 815.385.1778 | TOLL FREE: 800.728.7805
FAX: 815.385.1781 | HRGreen.com

FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
EROSION CONTROL SPECS

SHEET NO.
75

Xrefs: xgl-1-dh01; xc-1-details

UNITED STATES ARMY CORPS OF ENGINEERS NOTES:

1. EARTHEN COFFERDAMS OR OTHER PRACTICES THAT WOULD RESULT IN A RELEASE OF SEDIMENT INTO WATERS OF THE U.S. ARE NOT AUTHORIZED FOR USE. COFFERDAMS SHALL BE CONSTRUCTED OF NON-ERODIBLE MATERIALS ONLY. ACCEPTABLE PRACTICES INCLUDE, BUT ARE NOT LIMITED TO: PRE-FABRICATED RIGID COFFERDAMS, SHEET PILING, INFLATABLE BLADDERS, SANDBAGS AND FABRIC-LINED BASINS. 1. WORK IN THE WATERWAY SHOULD BE TIMED TO TAKE PLACE DURING LOW OR NO-FLOW CONDITIONS.
2. LOW FLOW CONDITIONS ARE FLOW AT OR BELOW THE NORMAL WATER ELEVATION.
3. WATER SHALL BE ISOLATED FROM THE IN-STREAM WORK AREA USING A COFFERDAM CONSTRUCTED OF NON-ERODIBLE MATERIALS (STEEL SHEETS, AQUA BARRIERS, RIP RAP AND GEOTEXTILE FABRIC, ETC.). EARTHEN COFFERDAMS ARE NOT PERMISSIBLE.
4. WORK MAY NOT BE PERFORMED IN THE WATER, EXCEPT FOR THE PLACEMENT OF THE MATERIALS NECESSARY FOR THE CONSTRUCTION OF THE COFFERDAM. THE COFFERDAM MUST BE CONSTRUCTED FROM THE UPLAND AREA AND NO EQUIPMENT MAY ENTER THE WATER AT ANY TIME. IF THE INSTALLATION OF THE COFFERDAM CAN NOT BE COMPLETED FROM SHORE AND ACCESS IS NEEDED TO REACH THE AREA TO BE COFFERED, OTHER MEASURES, SUCH AS THE CONSTRUCTION OF A CAUSEWAY, WILL BE NECESSARY TO ENSURE THAT EQUIPMENT DOES NOT ENTER THE WATER. ONCE THE COFFERDAM IS IN PLACE AND THE ISOLATED AREA IS DEWATERED, EQUIPMENT MAY ENTER THE COFFERED AREA TO PERFORM THE REQUIRED WORK.
5. IF BYPASS PUMPING IS NECESSARY, THE INTAKE HOSE SHALL BE PLACED ON A STABLE SURFACE OR FLOATED TO PREVENT SEDIMENT FROM ENTERING THE HOSE.THE BYPASS DISCHARGE SHALL BE PLACED ON A NON-ERODIBLE, ENERGY DISSIPATING SURFACE PRIOR TO REJOINING THE STREAM FLOW AND SHALL NOT CAUSE EROSION. FILTERING OF BYPASS WATER IS NOT NECESSARY UNLESS THE BYPASS WATER HAS BECOME SEDIMENT-LADEN AS A RESULT OF THE CURRENT CONSTRUCTION ACTIVITIES.
6. DURING DEWATERING OF THE COFFERED AREA, ALL WATER MUST BE FILTERED TO REMOVE SEDIMENT. POSSIBLE OPTIONS FOR SEDIMENT REMOVAL INCLUDE BAFFLE SYSTEMS, ANIONIC POLYMERS, DEWATERING BAGS, OR OTHER APPROPRIATE METHODS.WATER SHALL HAVE SEDIMENT REMOVED PRIOR TO BEING RE-INTRODUCED TO THE DOWNSTREAM WATERWAY. A STABILIZED CONVEYANCE FROM THE DEWATERING DEVICE TO THE WATERWAY MUST BE IDENTIFIED. DISCHARGE WATER IS CONSIDERED CLEAN IF IT DOES NOT RESULT IN A VISUALLY IDENTIFIABLE DEGRADATION OF WATER CLARITY.
7. THE PORTION OF THE SIDE SLOPE THAT IS ABOVE THE OBSERVED WATER ELEVATION SHALL BE STABILIZED AS SPECIFIED IN THE PLANS PRIOR TO ACCEPTING FLOWS. THE SUBSTRATE AND TOE OF SLOPE THAT HAS BEEN DISTURBED DUE TO CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS AND FULLY STABILIZED PRIOR TO ACCEPTING FLOWS.

COUNTY STORMWATER PERMIT REQUIREMENTS:

SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. AREAS OF THE DEVELOPMENT SITE THAT ARE NOT TO BE GRADED SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC OR OTHER DISTURBANCE UNTIL FINAL SEEDING IS PREFORMED. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, DEVELOPMENT SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.STABILIZATION BY SEEDING SHALL INCLUDE TOPSOIL PLACEMENT AND FERTILIZATION, AS NECESSARY.NATIVE SEED MIXTURES SHALL INCLUDE RAPID-GROWING ANNUAL GRASSES OR SMALL GRAINS TO PROVIDE INITIAL, TEMPORARY SOIL STABILIZATION. OFFSITE PROPERTY SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. VELOCITY DISSIPATION DEVICES SHALL BE PLACED AT CONCENTRATED DISCHARGE LOCATIONS ALONG THE LENGTH OF ANY OUTFALL CHANNEL, AS NECESSARY TO PREVENT EROSION. SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE DISTURBANCE OF TRIBUTARY AREAS. STABILIZATION OF DISTURBED AREAS SHALL BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRADING, EXCAVATING OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE DEVELOPMENT SITE, OR TEMPORARY CEASED ON ANY PORTION OF THE DEVELOPMENT SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION OF DISTURBED AREAS SHALL BE INITIATED WITHIN 1 WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE, BUT NO LATER THAN 14 CALENDAR DAYS FROM THE INITIATION OF STABILIZATION WORK IN THE AREA. EXCEPTIONS TO THESE TIME FRAMES ARE SPECIFIED AS INSTANCES WHEN THE INITIATION OF STABILIZATION MEASURES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE AND IN AREAS WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED AND WILL RESUME AFTER 14 DAYS, A TEMPORARY STABILIZATION METHOD MAY BE USED. DISTURBANCE OF STEEPS SLOPES SHALL BE MINIMIZED. AREAS OR EMBANKMENTS HAVING SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH STAKING IN PLACE SOD, EROSION CONTROL BLANKET IN COMBINATION WITH SEEDING, OR EQUIVALENT CONTROL MEASURE. PERIMETER CONTROL MEASURES SHALL BE PROVIDED DOWNSLOPE AND PERPENDICULAR TO THE FLOW OF RUNOFF FROM DISTURBED AREAS, WHERE THE TRIBUTARY AREA IS GREATER THAN 5,000 SQUARE FEET, AND WHERE RUNOFF WILL FLOW IN A SHEET FLOW MANNER. PERIMETER EROSION CONTROL SHALL ALSO BE PROVIDED AT THE BASE OF SOIL STOCKPILES. THE DRAINAGE SYSTEM SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION DOWNSLOPE FROM DISTURBED AREAS. INLET PROTECTION THAT REDUCES SEDIMENT LOADING, WHILE ALLOWING RUNOFF TO ENTER THE INLET SHALL BE REQUIRED FOR ALL STORM SEWERS. CHECK DAMS, OR AN EQUIVALENT CONTROL MEASURE, SHALL BE REQUIRED FOR ALL CHANNELS. FILTER FABRIC INLET PROTECTION AND STRAW BALE DITCH CHECKS ARE NOT ACCEPTABLE CONTROL MEASURES. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (E.G., SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURES). THE ENGINEER AND THE KANE DUPAGE COUNTY SOIL AND WATER CONSERVATION DISTRICT SHALL BE NOTIFIED PRIOR TO THE COMMENCEMENT OF DEWATERING ACTIVITIES.ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS SHALL BE PERMANENTLY STABILIZED.STOCKPILED SOIL AND MATERIALS SHALL BE REMOVED FROM FLOOD HAZARD AREAS AT THE END OF EACH WORK DAY. SOIL AND MATERIALS STOCKPILED IN IWMC OR BUFFER AREAS SHALL BE PLACED ON TIMBER MATS, OR AN EQUIVALENT CONTROL MEASURE.

EFFECTIVE CONTROL MEASURES SHALL BE UTILIZED TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THE DEVELOPMENT SITE. AT A MINIMUM, CONTROL MEASURES SHALL BE IMPLEMENTED IN ORDER TO:MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATER.MINIMIZE THE EXPOSURE OF BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, VEHICLE FLUIDS, SANITARY WASTE, AND OTHER MATERIALS PRESENT ON THE DEVELOPMENT SITE TO PRECIPITATION AND TO STORM WATER. ADEQUATE RECEPTACLES SHALL BE PROVIDED FOR THE DEPOSITION OF ALL CONSTRUCTION MATERIAL DEBRIS GENERATED DURING THE DEVELOPMENT PROCESS. THE CONTRACTOR SHALL NOT CAUSE OR PERMIT THE DUMPING, DEPOSITING, DROPPING, THROWING, DISCARDING OR LEAVING OF CONSTRUCTION MATERIAL DEBRIS UPON OR INTO ANY DEVELOPMENT SITE, CHANNEL OR IWMC. THE DEVELOPMENT SITE SHALL BE MAINTAINED FREE OF CONSTRUCTION MATERIAL DEBRIS. A STABILIZED MAT OF AGGREGATE UNDERLAIN WITH FILTER CLOTH (OR OTHER APPROPRIATE MEASURES) SHALL BE LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION-SITE OF A MAJOR DEVELOPMENT TO OR FROM A PUBLIC RIGHT-OF-WAY, STREET ALLEY, OR PARKING AREA. ANY SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT OF WAY, STREET, ALLEY OR PARKING AREA SHALL BE SCRAPED OR STREET CLEANED AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN AN EFFECTIVE WORKING CONDITION.DRAIN TILE SYSTEMS DISTURBED DURING DEVELOPMENT MUST BE RECONNECTED BY THOSE RESPONSIBLE FOR THEIR DISTURBANCE UNLESS THE APPROVED ENGINEERING PLANS INDICATE HOW THE DRAIN TILE SYSTEM IS TO BE CONNECTED TO THE PROPOSED STORM WATER MANAGEMENT SYSTEM.ALL ABANDONED DRAIN TILES SHALL BE REMOVED IN THEIR ENTIRETY.DRAIN TILES WITHIN THE DISTURBED AREA OF THE DEVELOPMENT SHALL BE REPLACED, BYPASSED AROUND THE DEVELOPMENT OR INTERCEPTED AND CONNECTED TO THE DRAINAGE SYSTEM FOR THE DEVELOPMENT. THE SIZE OF THE REPLACED OR BYPASSED DRAIN TILE SHALL BE EQUIVALENT TO THE EXISTING DRAIN TILE.

IN BUFFERS AND WETLANDS, THE EXCAVATED AREAS SHALL BE BACKFILLED WITH NATIVE SOIL IN THE SAME STRATIFICATION IN WHICH THE SOIL WAS REMOVED.

THE CONDITION OF THE CONSTRUCTION SITE FOR WINTER SHUTDOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT SLOPES AND OTHER BARE EARTH AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER FOR PROPER EROSION AND SEDIMENTATION CONTROL. ALL OPEN AREAS THAT ARE TO REMAIN IDLE THROUGHOUT THE WINTER SHALL RECEIVE TEMPORARY EROSION CONTROL PRACTICES INCLUDING TEMPORARY SEEDING, MULCHING AND/OR EROSION CONTROL BLANKET PRIOR TO THE END OF THE FALL GROWING SEASON. THE AREAS TO BE WORKED BEYOND THE END OF THE GROWING SEASON MUST INCORPORATE SOIL STABILIZATION PRACTICES THAT DO NOT RELY ON VEGETATIVE COVER SUCH AS EROSION CONTROL BLANKET AND HEAVY MULCHING.

KDSWCD STANDARD NOTES:

A) UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL LATEST EDITION.
B) THE KANE-DUPAGE SOIL AND WATER CONSERVATION DISTRICT (KDSWCD) MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ON WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
C) A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
D) PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE OWNER FOR REVIEW BY THE KDSWCD.
E) THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE KDSWCD.
F) ALL DEWATERING OPERATIONS MUST FOLLOW THE ILLINOIS URBAN MANUAL PRACTICE STANDARD 813. DURING DEWATERING OPERATIONS, WATER WILL BE FILTERED OR PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DIRECTLY INTO FIELD TILES OR STORM WATER STRUCTURES IS PROHIBITED.
G) IT IS THE RESPONSIBILITY OF THE LANDOWNER AND/OR GENERAL CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S) WHO MAY PERFORM WORK ON THIS PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS AND ASSURE COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
H) BACKUP QUANTITIES OF BEST MANAGEMENT PRACTICES HIGHLIGHTED IN THIS PLAN WILL BE HELD ON SITE FOR IMMEDIATE CORRECTIONAL ACTION IMPLEMENTATION FOLLOWING AN INSTANCE OF NON-COMPLIANCE.
I) THE LOCAL WEATHER PROJECTIONS WILL BE CONSIDERED WHEN IMPLEMENTING THE WEEKLY CONSTRUCTION PLANS.
J) ANY POTENTIAL IMPACT OF CONSTRUCTION ON OFF-SITE AREAS SHALL BE INCORPORATED INTO THE WEEKLY SWPPP INSPECTIONS.
K) ALL TRAFFIC GOING IN AND OUT OF THE CONSTRUCTION SITE SHALL BE RESTRICTED TO STABILIZED CONSTRUCTION ENTRANCES.
L) ANY INLET FOUND WITHIN 50' OF A CONSTRUCTION ENTRANCE SHALL HAVE PROTECTION MECHANISMS IN PLACE.
M) KDSWCD WILL USE THE ILLINOIS URBAN MANUAL AS A TECHNICAL REFERENCE FOR GUIDANCE WHEN ACCESSING SITE COMPLIANCE.
N) ALL DISTURBED GROUND DIRECTLY UPLAND OF JURISDICTIONAL AREAS SHALL RECEIVE ADEQUATE PROTECTION MEASURES AT THE CONCLUSION OF EACH WORK DAY.
O) ANY RIP-RAP PLACED IN JURISDICTIONAL AREAS, OR DIRECTLY UPSTREAM SHALL BE CLEANED OF FINES AND DEBRIS PRIOR TO PLACEMENT INTO SAID AREAS

FOR BIDDING ONLY

Xrefs: xgt-1-dh01; xc-1-details

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APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/22/2020 3:03:54 PM
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IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

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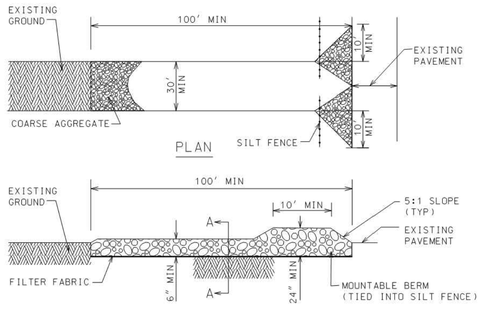
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS - PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
EROSION CONTROL SPECS

SHEET NO.
76



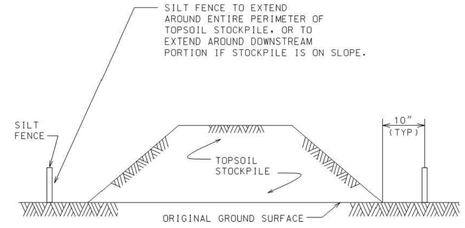
NOTES:

1. GEOTEXTILE FILTER FABRIC SHALL BE PLACED OVER THE CLEARED AREA PRIOR TO PLACING COARSE AGGREGATE
2. COARSE AGGREGATE (OR CRUSHED CONCRETE) SHALL MEET IDOT GRADATION FOR CA-1 CRUSHED AGGREGATE.
3. STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED, PRIOR TO ONSET OF CONSTRUCTION OPERATIONS AND SHALL BE MAINTAINED THROUGHOUT THE PROJECT.
4. CONSTRUCTION ENTRANCE SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION AND ONLY WHEN DIRECTED BY THE CITY.

CITY OF ST. CHARLES
ILLINOIS • SINCE 1834
Pride of the Fox

(SE) STABILIZED CONSTRUCTION ENTRANCE

DATE: 3-31-2009	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. F-02



NOTES:

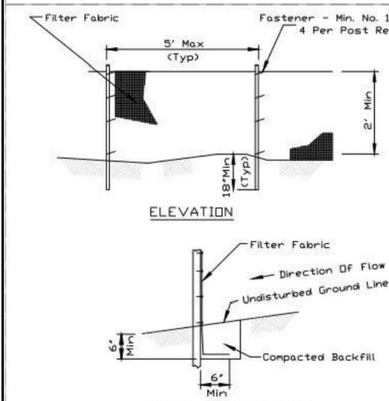
1. AN ON-SITE DRAINAGE SWALE SHALL BE LOCATED BETWEEN THE TOPSOIL STOCKPILE AND OFF-SITE PROPERTY.
2. REFERENCE IS MADE TO THE SILT FENCE DETAIL FOR MATERIALS AND INSTALLATION METHODS.
3. IF THE STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS, IT SHALL BE STABILIZED WITH BURLAP MATTING OR SEEDED WITHIN 7 DAYS OF COMPLETION TO MINIMIZE EROSION.
4. INSPECTION OF SILT FENCES SHALL BE AT LEAST ONCE PER WEEK AND AFTER RAIN EVENTS IN EXCESS OF ½". REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. SEDIMENT TRAPPED BY THE FENCES SHALL BE REMOVED AND PROPERLY DISPOSED OF WHENEVER SIGNIFICANT ACCUMULATION OCCURS.
6. SILT FENCES SHALL BE MAINTAINED IN PLACE UNTIL TOPSOIL STOCKPILE HAS BEEN ELIMINATED AND SHALL BE REMOVED ONLY WHEN DIRECTED BY THE CITY.

CITY OF ST. CHARLES
ILLINOIS • SINCE 1834
Pride of the Fox

TEMPORARY TOPSOIL STOCKPILE

DATE: 3-31-2009	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. F-04

(BF) SILT FENCE PLAN



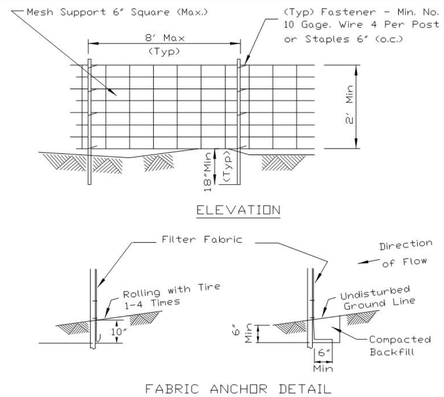
NOTES:

1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile based upon performance needed.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 2" x 2" nominal size.

REFERENCE
Project
Designed Date
Checked Date
Approved Date

STANDARD DWG. NO. IUM-620
SHEET 1 OF 2
DATE 3-16-12

(BF) SILT FENCE WITH WIRE SUPPORT PLAN



STATIC SLICE INSTALLATION TRENCH INSTALLATION

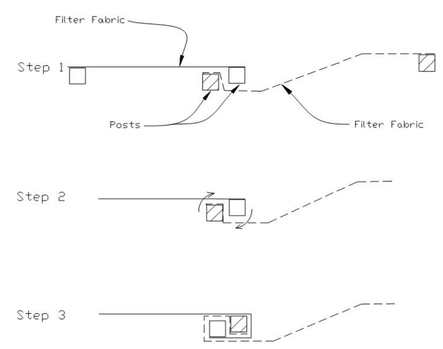
NOTES:

1. Silt Fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization. Silt Fence shall be placed on the flattest area available.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I with equivalent opening size of at least 30 for nonwoven and 40 for woven.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

REFERENCE
Project
Designed Date
Checked Date
Approved Date

STANDARD DWG. NO. IUM-620A(W)
SHEET 1 OF 2
DATE 3-16-2012

(BF) SILT FENCE - SPLICING TWO FENCES



ATTACHING TWO SILT FENCES

1. Place the end post of the second fence inside the end post of the first fence.
2. Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material.
3. Cut the fabric near the bottom of the stakes to accommodate the 6" flap.
4. Drive both posts a minimum of 18 inches into the ground and bury the flap.
5. Compact backfill (particularly at splices) completely to prevent stormwater piping.

REFERENCE
Project
Designed Date
Checked Date
Approved Date

STANDARD DWG. NO. IUM-620B(W)
SHEET 1 OF 1
DATE 3-16-2012

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Xrefs: xgl-1-dh01; xc-1-details

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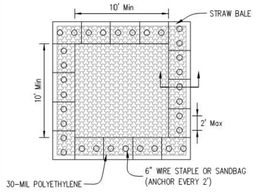
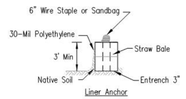
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
EROSION CONTROL DETAILS

SHEET NO.
77

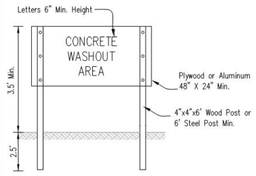


PLAN VIEW



Liner Anchor

STRAW BALE ANCHOR SECTIONS

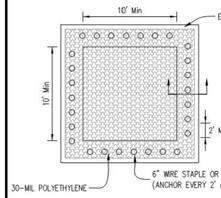


SIGN DETAIL

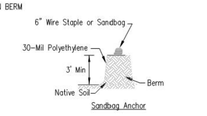
NOTES:

1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardend concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.
3. Each straw bale is to be staked in place using (2) 2"x2"x4' wooden stakes.

WO TEMPORARY CONCRETE WASHOUT FACILITY - STRAW BALE

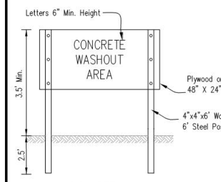


PLAN VIEW

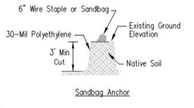


Sandbag Anchor

EARTHEN BERM ANCHOR SECTIONS



SIGN DETAIL



Sandbag Anchor

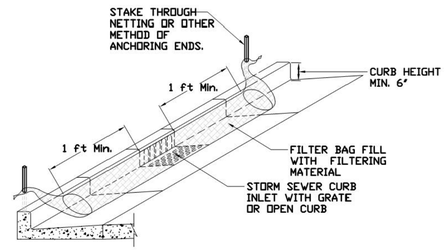
SUBGRADE ANCHOR SECTIONS

NOTES:

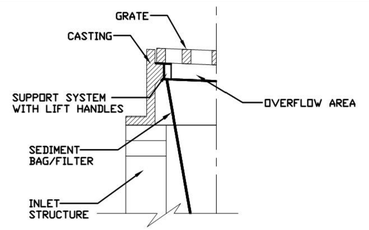
1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardend concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

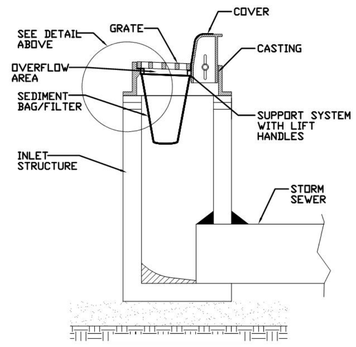
WO TEMPORARY CONCRETE WASHOUT FACILITY - EARTHEN TYPE

IP INLET PROTECTION - PAVED AREAS
CURB PROTECTION



IP INLET PROTECTION - PAVED AREAS
FB DROP-IN PROTECTION





REFERENCE		STANDARD DWG. NO.
Project		IUM-561C
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 01-11-11
Approved ____ Date ____		

REFERENCE		STANDARD DWG. NO.
Project		IUM-561D
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 01-11-11
Approved ____ Date ____		

EROSION CONTROL BLANKET:

STANDARD	DESCRIPTION
IUM-530	EROSION CONTROL BLANKET
IUM-531	EROSION CONTROL BLANKET, TURF REINF. MAT

INLET PROTECTION:

STANDARD	DESCRIPTION
IL-555	EXCAVATED DRAIN
IL-560	FABRIC DROP
IL-562	SOD FILTER
IUM-561C	FILTER BAG
IUM-561D	SEDIMENT BAG/FILTER

END SECTION INLET PROTECTION:

STANDARD	DESCRIPTION
IL-508SF	CULVERT INLET PROTECTION - SILT FENCE
IL-508ST	CULVERT INLET PROTECTION - STONE

DITCH CHECK:

STANDARD	DESCRIPTION
IUM-514PC	PLASTIC PERMEABLE
IUM-514RC	ROLLED EROSION CONTROL
IUM-514SC	SYNTHETIC POROUS CONTROL
IUM-514UF	URETHANE FOAM GEOTEXTILES
IUM-514VC	VEGETATED EROSION CONTROL
IL-605CA	ROCK CHECK DAM - COARSE AGGREGATE
IL-605R	ROCK CHECK DAM - RIPRAP

SILT FENCE:

STANDARD	DESCRIPTION
IUM-620A	SILT FENCE
IUM-620AW	SILT FENCE WITH WIRE SUPPORT
IUM-620BW	SILT FENCE SPLICING

NOTE:
STANDARDS ARE PER THE NATURAL RESOURCES CONSERVATION SERVICE AS PUBLISHED IN THE ILLINOIS URBAN MANUAL, LATEST EDITION.

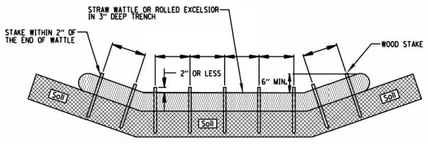
CITY OF ST. CHARLES
ILLINOIS • SINCE 1834
Pride of the Fox

EROSION CONTROL

DATE: 4-3-2013	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. F-01

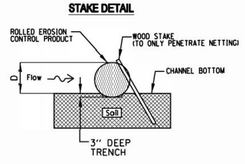
DC ROLLED EROSION CONTROL PRODUCTS

STAKING PATTERN GUIDE



NOTES:
1. OVERLAP MINIMUM IS THE DIAMETER OF THE ROLL.
2. 4' SPACING FOR WATTLES.
3. 2' SPACING FOR ROLLED EXCELSIOR.
4. OR SPACE ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

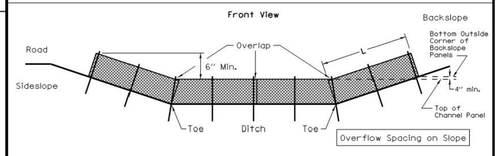
STAKE DETAIL

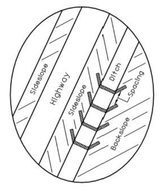


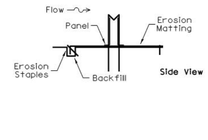
NOTES:
1. DRAWINGS ARE NOT TO SCALE.
2. ENDS OF WATTLES OR ROLLED EXCELSIOR SHALL BE TURNED AT LEAST 6" UPSLOPE.
3. RECOMMENDED STAKES ARE 1 1/8" WIDE x 1 1/8" THICK x 30" LONG.
4. STAKES SHALL NOT EXTEND ABOVE THE STRAW WATTLE MORE THAN 2".
5. SPACING: THE TOE OF THE UPSTREAM DITCH CHECK SHALL CREATE A HORIZONTAL LINE WITH THE TOP OF THE DOWNSTREAM DITCH CHECK.

REFERENCE		STANDARD DWG. NO.
Project		IUM-514
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 08-2-2019
Approved ____ Date ____		

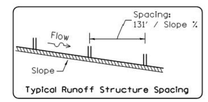
DC SYNTHETIC POROUS
RUNOFF CONTROL STRUCTURES







Minimum Installation Length up Slopes	
Slope	Panels
2:1	1
2.5:1	1.5
3:1	2
3.5:1	2
4:1	2
5:1	2.5
6:1	2.5



REFERENCE		STANDARD DWG. NO.
Project		IUM-514
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 8-19-11
Approved ____ Date ____		

FOR BIDDING ONLY

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APPROVED: DVM	JOB NUMBER: 170818	
CAD DATE: 10/7/2020 10:20:48 PM		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD FILE: J:\2017\170818\CAD\Dwgs\C\78 EROSION CONTROL DETAILS.dwg		

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
ILLINOIS DESIGN FIRM # 184.001322
420 N. FRONT STREET, SUITE 100
McHENRY, ILLINOIS 60050
PHONE: 815.385.1778 | TOLL FREE: 800.728.7805
FAX: 815.385.1781 | HRGreen.com

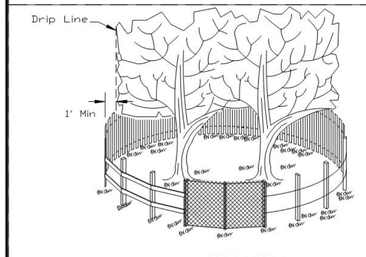
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS - PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
EROSION CONTROL DETAILS

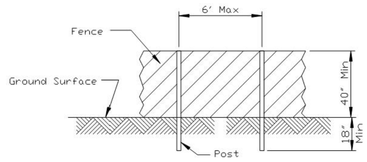
SHEET NO.
78

Xrefs: xgl-1-dh01; xc-1-details

TREE PROTECTION - FENCING



SIDE VIEW

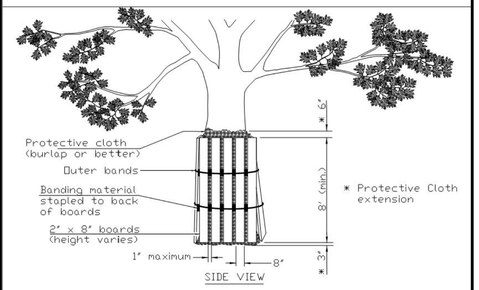


POST AND FENCE DETAIL

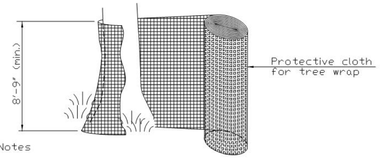
NOTES:
1. The fence shall be located a minimum of 1 foot outside the drip line of the tree to be saved and in no case closer than 5 feet to the trunk of any tree.
2. Fence posts shall be either standard steel posts or wood posts with a minumum cross sectional area of 3.0 sq. in.
3. The fence may be either 40" high snow fence, 40" plastic web fencing or any other material as approved by the engineer/inspector.

REFERENCE		STANDARD DWG. NO.
Project	NRCS Natural Resources Conservation Service	IL-690
Designed _____ Date _____		SHEET 1 OF 1
Checked _____ Date _____		DATE 4-7-94
Approved _____ Date _____		

TREE TRUNK PROTECTION



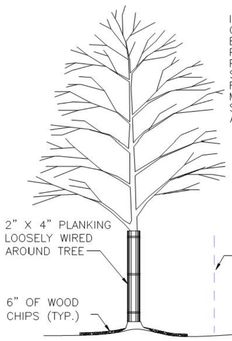
SIDE VIEW



Notes

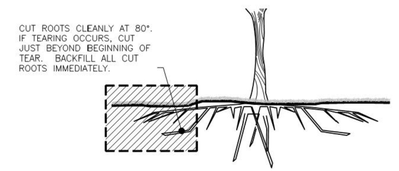
1. The contractor shall provide 2" x 8" boards banded continuously around each trunk with a protective cloth (such as burlap or better) placed between the boards and the tree to prevent scarring of the tree being protected. The height of the boards is variable due to height of tree being protected. Trees to be protected shall be shown in the plans or designated by the Professional Forester or Certified Arborist.
2. The protective cloth shall extend past both the top and bottom of the boards as shown in the detail. Width of wrap material varies. For fabric that does not meet the required height, fabric shall overlap a minimum of 6" and shall be spliced to avoid slippage.

REFERENCE		STANDARD DWG. NO.
Project		IUM-690-C
Designed _____ Date _____		SHEET 1 OF 1
Checked _____ Date _____		DATE 09-14-2017
Approved _____ Date _____		



TYP. TREE TRUNK PROTECTION DETAIL

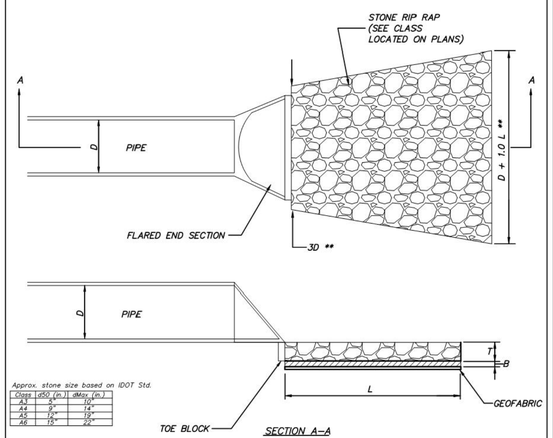
SCALE: NTS



TYP. ROOT PRUNING DETAIL

SCALE: NTS

(RR) STONE RIP RAP DETAIL
FOR ANY TAILWATER CONDITION



SECTION A-A

Approx. stone size based on IDOT Std.

Class	d50 (in)	dMax (in)
A3	5"	10"
A4	7"	14"
A5	10"	19"
A6	13"	22"

** NOTE: WHEN OUTLETING TO A DEFINED CHANNEL, WITDTH AND AREA OF APRON SHALL CONFORM TO TOP OF CHANNEL BANK

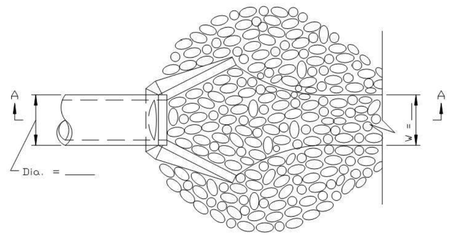
LOW VELOCITY (<5fps)				
D	T	L	B	–
Pipe Size in.	Rock Class (Min. Thickness)	Length of Apron	Bedding Class (Thickness)	Quantity SY. **
10"	A2 (6")	10'	–	8
12"	A3 (15")	12'	–	11
15"	A3 (15")	13'	–	13
18"	A3 (15")	14'	–	16
21"	A3 (15")	15'	–	18
24"	A3 (15")	16'	–	21
27"	A3 (15")	17'	–	25
30"	A3 (15")	18'	–	28
33"	A4 (16")	19'	A1 (6")	32
36"	A4 (16")	20'	A1 (6")	36
42"	A4 (16")	22'	A1 (6")	44
48"	A4 (16")	24'	A1 (6")	53

HIGH VELOCITY (5-10fps)				
D	T	L	B	–
Pipe Size in.	Rock Class (Min. Thickness)	Length of Apron	Bedding Class (Thickness)	Quantity SY. **
10"	A2 (6")	10'	–	8
12"	A3 (15")	15'	–	16
15"	A3 (15")	15'	–	17
18"	A4 (16")	16'	A1 (6")	20
21"	A4 (16")	18'	A1 (6")	25
24"	A4 (16")	20'	A1 (6")	31
27"	A4 (16")	21'	A1 (6")	35
30"	A4 (16")	22'	A1 (6")	39
33"	A5 (22")	23'	A1 (8")	44
36"	A5 (22")	24'	A1 (8")	48
42"	A6 (26")	26'	A2 (10")	58
48"	A6 (26")	28'	A2 (10")	68

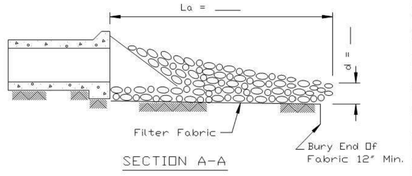
Note See current Illinois Department of Transportation Standard Specification to verify rock size and bedding thickness. RIPRAP

(RR) PIPE OUTLET TO CHANNEL

Pipe Outlet To Well-Defined Channel



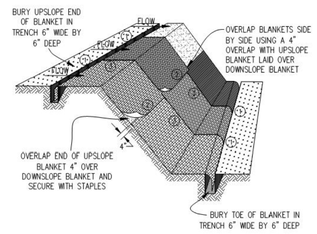
PLAN

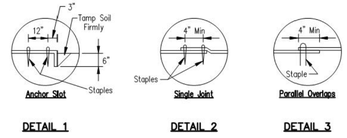


SECTION A-A

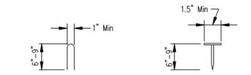
NOTES:
1. The filter fabric shall meet the requirements in material specification 592 GEOTEXTILE Table 1 or 2, Class I, II or III .
2. The rock riprap shall meet the IDOT requirements for the following gradation ____ .
3. The riprap shall be placed according to construction specification 61 LOOSE ROCK RIPRAP. The rock may be equipment placed.

REFERENCE		STANDARD DWG. NO.
Project	NRCS Natural Resources Conservation Service	IL-611
Designed _____ Date _____		SHEET 1 OF 1
Checked _____ Date _____		DATE 8-18-94
Approved _____ Date _____		





DETAIL 1 DETAIL 2 DETAIL 3

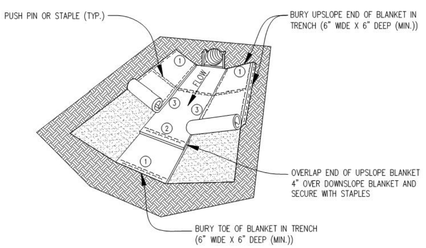


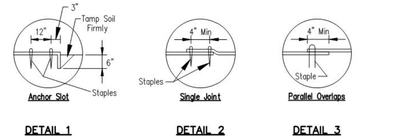
STAPLE DETAIL PUSH PIN DETAIL

NOTES:
1. Staples shall be placed in a diamond pattern at 2 per s.y. for stiched blankets. Non-stiched shall use 4 staples per s.y. of material. This equates to 200 staples with stiched blanket and 400 stapels with non-stiched blanket per 100 s.y. of material.
2. Staple or push pin lengths shall be selected based on soil type and conditions. (minimum staple length is 6")
3. Erosion control material shall be placed in contact with the soil over a prepared seedbed.
4. All anchor slots shall be stapled at approximately 12" intervals.

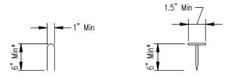
(EB) EROSION CONTROL BLANKET INSTALLATION DETAILS	Designed _____ Date _____ Drawn B. JOHNSON 11/08 Checked _____ Approved _____	

(EB) EROSION CONTROL BLANKET - TURF REINFORCEMENT MAT (TRM)





DETAIL 1 DETAIL 2 DETAIL 3



STAPLE DETAIL PUSH PIN DETAIL

*Note:
1. For sandy soil conditions, staple or push pin shall be a minimum 8 inches.

REFERENCE		STANDARD DWG. NO.
Project		IUM-531
Designed _____ Date _____		SHEET 1 OF 1
Checked _____ Date _____		DATE 02-22-11
Approved _____ Date _____		

FOR BIDDING ONLY

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APPROVED: DVM	JOB NUMBER: 170818	0 1"	
CAD DATE: 10/7/2020 10:20:54 PM		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD FILE: J:\2017\170818\CAD\Dwgs\C\79 EROSION CONTROL DETAILS.dwg			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
ILLINOIS DESIGN FIRM # 184.001322
420 N. FRONT STREET, SUITE 100
McHENRY, ILLINOIS 60050
PHONE: 815.385.1778 | TOLL FREE: 800.728.7805
FAX: 815.385.1781 | HRGreen.com

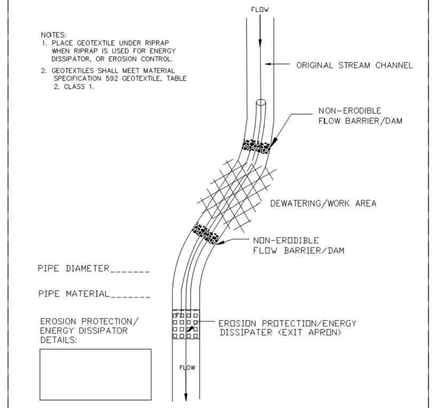
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
EROSION CONTROL DETAILS

SHEET NO.
79

Xrefs: xgt-1-dh01; xc-1-details

TEMPORARY STREAM DIVERSION - PIPE DIVERSION



NOTES:
1. PLACE GEOTEXTILE UNDER RIPRAP WHEN RIPRAP IS USED FOR ENERGY DISSIPATOR, OR EROSION CONTROL.
2. GEOTEXTILES SHALL MEET MATERIAL SPECIFICATION 592 GEOTEXTILE, TABLE 2, CLASS 1.

PIPE DIAMETER_____

PIPE MATERIAL_____

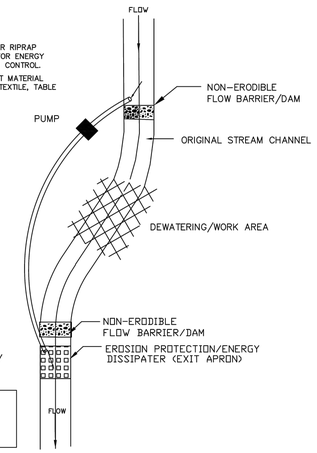
EROSION PROTECTION/ ENERGY DISSIPATOR DETAILS:

TYPICAL PIPE DIVERSION PLAN

REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

STANDARD DWG. NO.
IUM-676PD
SHEET 1 OF 1
DATE 7-29-2011

TEMPORARY STREAM DIVERSION - BYPASS PUMP



NOTES:
1. PLACE GEOTEXTILE UNDER RIPRAP WHEN RIPRAP IS USED FOR ENERGY DISSIPATOR, OR EROSION CONTROL.
2. GEOTEXTILES SHALL MEET MATERIAL SPECIFICATION 592 GEOTEXTILE, TABLE 2, CLASS 1.

PUMP SIZE: ____

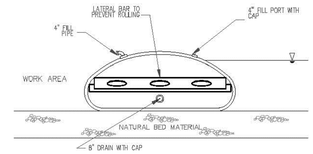
EROSION PROTECTION/ ENERGY DISSIPATOR DETAILS:

TYPICAL PUMPED DIVERSION PLAN

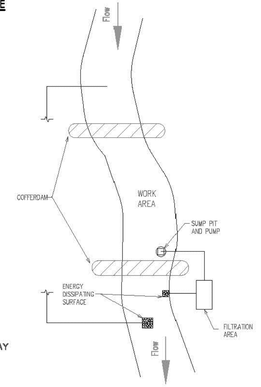
REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

STANDARD DWG. NO.
IUM-676BP
SHEET 1 OF 1
DATE 7-29-2011

BLADDER COFFERDAM



COFFERDAM PROFILE



PLAN VIEW

NOTES:
1. ALL DISCHARGES SHOULD BE ON ENERGY DISSIPATING SURFACES.
2. LOCATIONS FOR THE SUMP PIT, FILTRATION AREA, AND ENERGY DISSIPATING SURFACES MAY VARY DEPENDING ON SITE CONDITIONS.

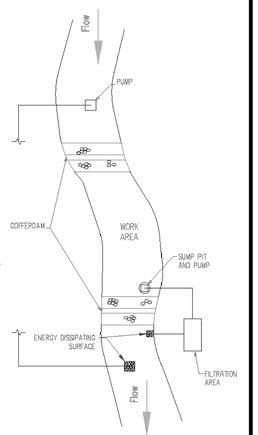
REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

STANDARD DWG. NO.
IUM-503BF
SHEET 3 OF 7
DATE 7-09-2012

ROCK COFFERDAM

COFFERDAM CROSS-SECTION

COFFERDAM PROFILE



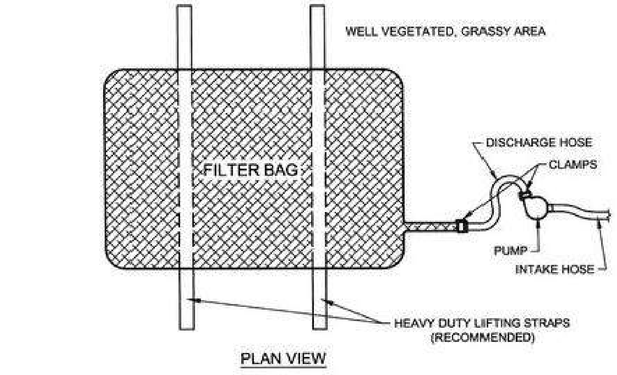
PLAN VIEW

NOTES:
1. THE LINER SHALL BE PLACED ON BOTTOM OF WATERWAY W/EXCESS LINER EXTENDING OUT OF THE COFFERED AREA. ONCE STONE IS PLACED, LINER WILL BE PULLED OVER ROCK AND EXTEND BEYOND THE PILE ON THE DOWNSTREAM SIDE. SANDBAGS WILL SECURE THE EXCESS LINER AS SHOWN. REFER TO THE STANDARD FOR LINER SPECIFICATIONS.

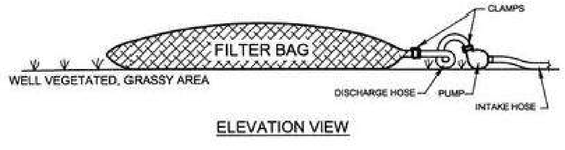
REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

STANDARD DWG. NO.
IUM-503RF
SHEET 5 OF 7
DATE 7-09-2012

Pumped Water Filter Bag

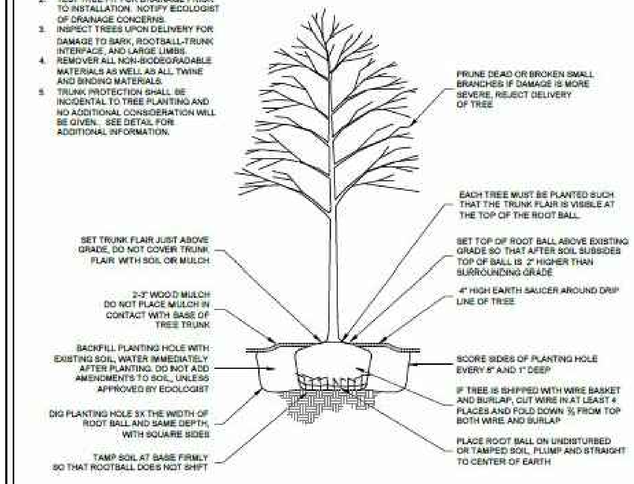


PLAN VIEW



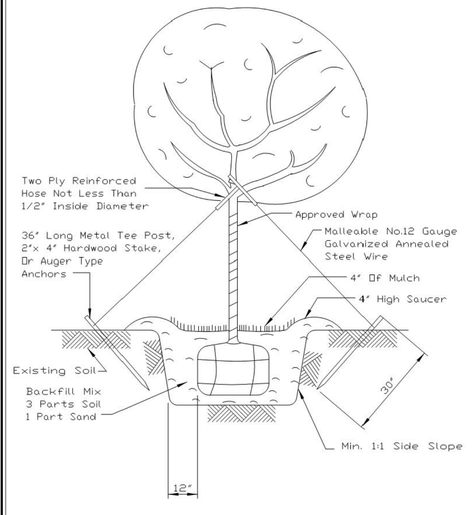
ELEVATION VIEW

NOTES:
1. SET TREE PLUMB IN PLANTING PIT. MAINTAIN PLUMB CONDITION THROUGHOUT GUARANTEE PERIOD.
2. TEST TREE PIT FOR DRAINAGE PRIOR TO INSTALLATION. NOTIFY ECOLOGIST OF DRAINAGE CONCERNS.
3. INSPECT TREES UPON DELIVERY FOR DAMAGE TO BARK, ROOTBALL-TRUNK INTERFACE, AND LARGE LIMBS.
4. REMOVER ALL NON-BIODEGRADABLE MATERIALS AS WELL AS ALL TWINE AND BINDING MATERIALS.
5. TRUNK PROTECTION SHALL BE INCIDENTAL TO TREE PLANTING AND NO ADDITIONAL CONSIDERATION WILL BE GIVEN. SEE DETAIL FOR ADDITIONAL INFORMATION.



TREE PLANTING DETAIL
NOT TO SCALE

THREE GUY METHOD-TREES OVER 8'



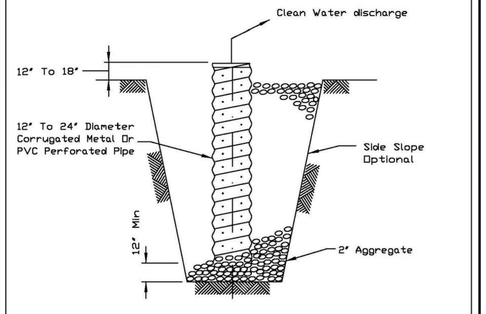
No Scale

REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

NRCS Natural Resources Conservation Service

STANDARD DWG. NO.
IL-688
SHEET 1 OF 1
DATE 9-17-93

SUMP PIT PLAN



SECTION

NOTES:
1. Pit dimensions are optional.
2. The standpipe will be constructed by perforating a 12"-24" diameter corrugated metal or PVC pipe.
3. A base of 2" aggregate will be placed in the pit to a minimum depth of 12". After installing the standpipe, the pit surrounding the standpipe will then be backfilled with 2" aggregate.
4. The standpipe will extend 12" to 18" above the lip of the pit.
5. If discharge will be pumped directly to a storm drainage system, the standpipe will be wrapped with filter fabric before installation.
6. If desired, 1/4"-1/2" hardware cloth may be placed around the standpipe prior to attaching the filter fabric. This will increase the rate of water seepage into the pipe.

REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

NRCS Natural Resources Conservation Service

STANDARD DWG. NO.
IL-650
SHEET 1 OF 1
DATE 8-11-94

FOR BIDDING ONLY

DRAWN BY: CTK JOB DATE: OCTOBER 28, 2020
APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/7/2020 10:20:59 PM
CAD FILE: J:\2017\170818\CAD\Dwgs\C\80 EROSION CONTROL DETAILS.dwg

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
ILLINOIS DESIGN FIRM # 184.001322
420 N. FRONT STREET, SUITE 100
McHENRY, ILLINOIS 60050
PHONE: 815.385.1778 | TOLL FREE: 800.728.7805
FAX: 815.385.1781 | HRGreen.com

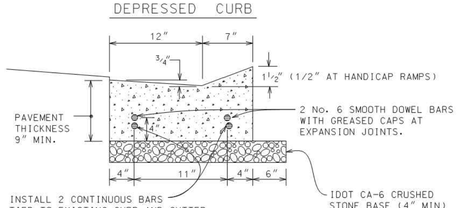
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
EROSION CONTROL DETAILS

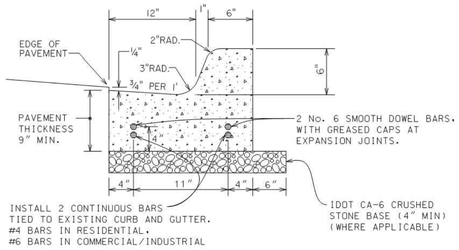
SHEET NO.
80

Xrefs: xgl-1-dh01; xc-1-details

DEPRESSED CURB



B6.12 CURB & GUTTER

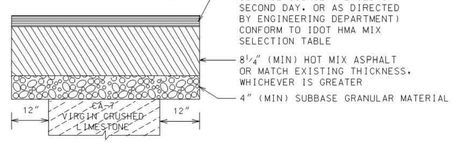


NOTES:

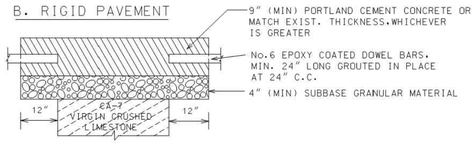
1. CONTRACTION JOINTS SHALL BE PLACED AT 15' INTERVALS, AND SHALL BE FORMED BY SAW CUTTING TO A DEPTH OF AT LEAST TWO INCHES.
2. EXPANSION JOINTS SHALL BE PLACED AT 60' (MAX) INTERVALS, AT ALL POINTS OF CURVATURE, AND AT THE END OF EACH POUR.

CITY OF ST. CHARLES ILLINOIS • SINCE 1834 *Pride of the Fox*	TYPE B6.12 COMBINATION CONCRETE CURB & GUTTER	
	DATE: 5-23-2017	NOT TO SCALE
	PRINT: 4-6-2020	DRAWING NO. E-02

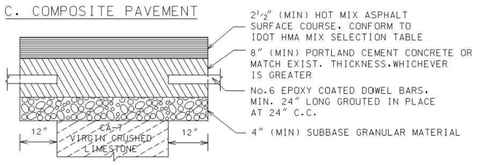
A. FLEXIBLE PAVEMENT



B. RIGID PAVEMENT



C. COMPOSITE PAVEMENT

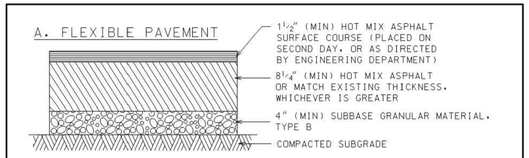


NOTE:

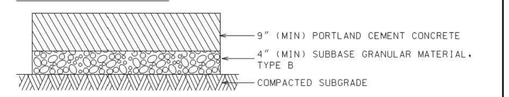
1. ALL PAVEMENT PATCHES SHALL BE SAWCUT FULL-DEPTH A MINIMUM OF ONE FOOT BEYOND THE LIMITS OF THE FAILED PAVEMENT IN ALL DIRECTIONS.

CITY OF ST. CHARLES ILLINOIS • SINCE 1834 *Pride of the Fox*	PAVEMENT PATCH	
	DATE: 1-30-2020	NOT TO SCALE
	PRINT: 4-6-2020	DRAWING NO. E-07

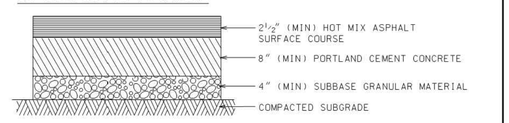
A. FLEXIBLE PAVEMENT



B. RIGID PAVEMENT



C. COMPOSITE PAVEMENT

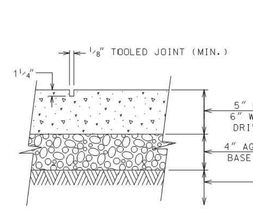


NOTES:

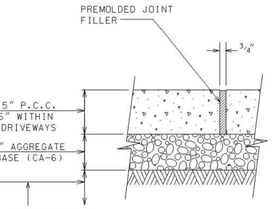
1. SECTIONS REPRESENT THE MINIMUM CROSS SECTION ALLOWED.
2. HOT MIX ASPHALT SURFACE & BINDER COURSE SHALL CONFORM TO IDOT HMA MIX SELECTION TABLE.
3. ALL SUBGRADE SHALL HAVE A MINIMUM ILLINOIS BEARING RATIO (IBR) OF 3.0. AND BE COMPACTED TO AT LEAST 90% MODIFIED PROCTOR DENSITY (ASTM D-1557)

CITY OF ST. CHARLES ILLINOIS • SINCE 1834 *Pride of the Fox*	MINIMUM PAVEMENT	
	DATE: 1-30-2020	NOT TO SCALE
	PRINT: 4-6-2020	DRAWING NO. E-08

CONTRACTION JOINT DETAIL



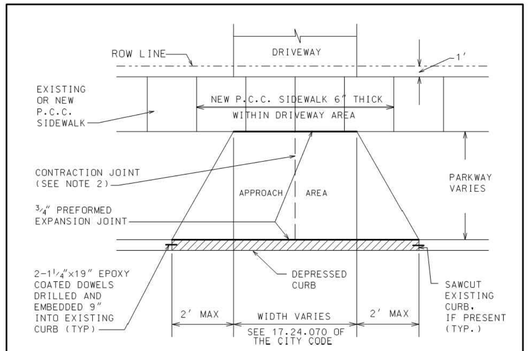
EXPANSION JOINT DETAIL



NOTES:

1. UNLESS OTHERWISE NOTED ON PLANS, CONTRACTION JOINTS TO BE AT 5'-0" O.C.
2. EXPANSION JOINTS TO BE 50'-0" O.C. MAX. OR AT BACK OF CURB, CHANGE OF DIRECTION, OTHER WALK, UTILITY APPURTENANCE, OR FACE OF STRUCTURE.

CITY OF ST. CHARLES ILLINOIS • SINCE 1834 *Pride of the Fox*	CONCRETE WALK JOINTS	
	DATE: 1-23-2017	NOT TO SCALE
	PRINT: 4-6-2020	DRAWING NO. E-09



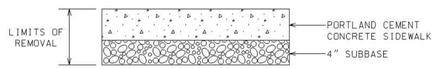
STREET

NOTES:

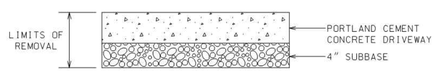
1. FOR P.C.C. DRIVEWAY OVER AN UNDERGROUND UTILITY TRENCH, PLACE 6X6 - W2.9XW2.9 WELD AND WIRE FABRIC AT MID-DEPTH OF THE CONCRETE.
2. FOR CONCRETE APPROACH WIDER THAN 16', A CONTRACTION JOINT SHALL BE LOCATED ALONG THE CENTERLINE.
3. P.C.C. CONCRETE DRIVEWAYS:
   APPROACH- 6" (MIN) PORTLAND CEMENT CONCRETE AND 4" (MIN) IDOT CA-6 CRUSHED STONE
   DRIVEWAY- 5"(MIN) PORTLAND CEMENT CONCRETE AND 4" (MIN) IDOT CA-6 CRUSHED STONE
4. BITUMINOUS DRIVEWAYS:
   APPROACH- 6" (MIN) IDOT CA-6 CRUSHED STONE AND 3" (MIN) HOT-MIX ASPHALT
   DRIVEWAY- 4" (MIN) IDOT CA-6 CRUSHED STONE AND 3" (MIN) HOT-MIX ASPHALT
5. BRICK PAVERS OR OTHER ARCHITECTURAL PAVING MATERIALS ARE NOT ALLOWED IN A DRIVEWAY APPROACH AREA WITHOUT A RIGHT OF WAY PERMIT AND A COVENANT RUNNING WITH THE LAND.
6. MAINTAIN FULL SIDEWALK WIDTH THRU DRIVEWAYS UNLESS DIRECTED OTHERWISE BY CITY ENGINEER.CURBING SHALL NOT RUN THRU SIDEWALK AREAS IN DRIVEWAYS.

CITY OF ST. CHARLES ILLINOIS • SINCE 1834 *Pride of the Fox*	TYPICAL DRIVEWAY	
	DATE: 1-30-2020	NOT TO SCALE
	PRINT: 4-6-2020	DRAWING NO. E-10

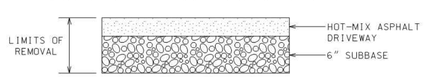
SIDEWALK



PCC DRIVEWAY PAVEMENT REMOVAL



HMA DRIVEWAY PAVEMENT REMOVAL



CITY OF ST. CHARLES ILLINOIS • SINCE 1834 *Pride of the Fox*	SIDEWALK & DRIVEWAY LIMITS OF REMOVAL	
	DATE: 2-20-2019	NOT TO SCALE
	PRINT: 4-6-2020	DRAWING NO. E-13

FOR BIDDING ONLY

DRAWN BY: CTK	JOB DATE: OCTOBER 28, 2020	BAR IS ONE INCH ON OFFICIAL DRAWINGS.	
APPROVED: DVM	JOB NUMBER: 170818	0 1"	
CAD DATE: 10/7/2020 10:21:13 PM		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD FILE: J:\2017\170818\CAD\Dwgs\C\81 ROADWAY DETAILS.dwg			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen

ILLINOIS DESIGN FIRM # 184.001322
420 N. FRONT STREET, SUITE 100
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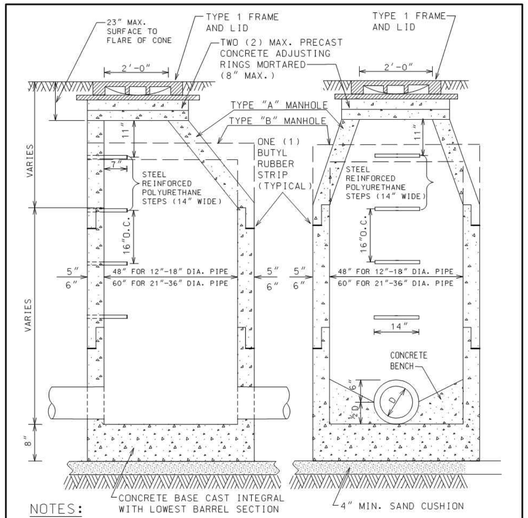
PHONE: 815.385.1778 | TOLL FREE: 800.728.7805
FAX: 815.385.1781 | HRGreen.com

FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
ROADWAY DETAILS

SHEET NO.
81

Xrefs: xgt-1-dh01; xc-1-details

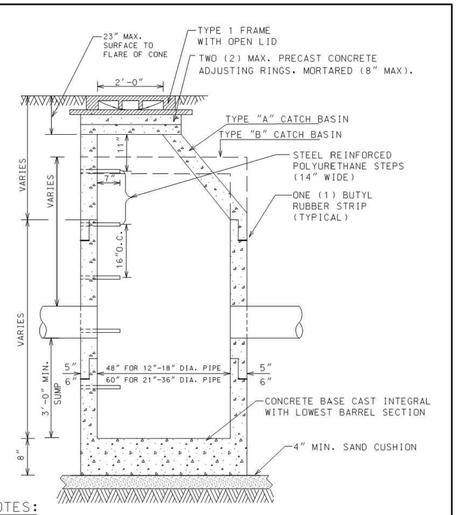


NOTES:

1. MANHOLES MUST CONFORM TO ASTM C-478.
2. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
3. BENCHES MUST BE PROVIDED IN ALL STORM SEWER MANHOLES.
4. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.
5. MORTAR ALL PIPE PENETRATIONS INSIDE AND OUTSIDE OF STRUCTURE.
6. IN "SUBMERGED" CONDITIONS, ALL PIPE PENETRATIONS TO BE CORED. RUBBER BOOTED AND INTERIOR MORTARED.
7. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY, FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN IDOT APPROVED CONCRETE "SI" MIXTURE.

CITY OF ST. CHARLES
ILLINOIS • SINCE 1834
Pride of the Fox

TYPE A & B STORM MANHOLE	
DATE: 12-16-2019	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. C-01

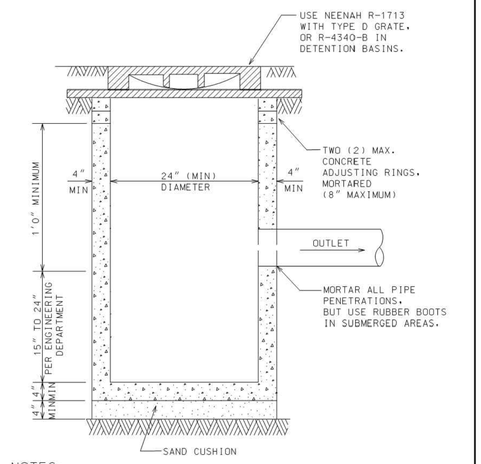


NOTES:

1. MANHOLES MUST CONFORM TO ASTM C-478.
2. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
3. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.
4. MORTAR ALL PENETRATIONS INSIDE AND OUTSIDE OF STRUCTURE.
5. IN "SUBMERGED" CONDITIONS, ALL PIPE PENETRATIONS TO BE CORED. RUBBER BOOTED AND INTERIOR MORTARED.
6. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY, FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN IDOT APPROVED CONCRETE "SI" MIXTURE.

CITY OF ST. CHARLES
ILLINOIS • SINCE 1834
Pride of the Fox

TYPE A & B CATCH BASIN	
DATE: 12-16-2019	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. C-03

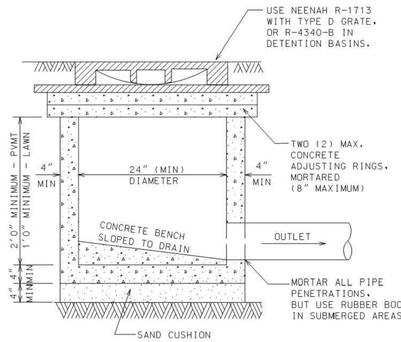


NOTES:

1. CATCH BASIN TO BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE.
2. CATCH BASIN MUST CONFORM TO ASTM C-478.
3. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.
4. MAXIMUM DEPTH FROM INVERT OF OUTLET PIPE TO TOP OF FRAME SHALL NOT EXCEED 42 INCHES. IF DESIGN OR CONSTRUCTION REQUIRES DEPTH BEYOND 42 INCHES. STRUCTURE SHALL BE REVISED TO A 48 INCH DIAMETER TY A CATCH BASIN.

CITY OF ST. CHARLES
ILLINOIS • SINCE 1834
Pride of the Fox

TYPE C CATCH BASIN	
DATE: 8-18-2010	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. C-04

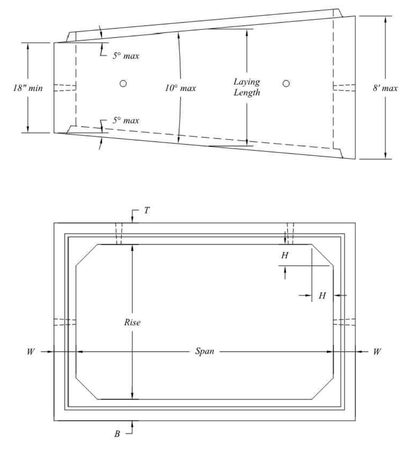


NOTES:

1. CATCH BASIN TO BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE.
2. CATCH BASIN MUST CONFORM TO ASTM C-478.
3. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.
4. MAXIMUM DEPTH FROM INVERT OF OUTLET PIPE TO TOP OF FRAME SHALL NOT EXCEED 42 INCHES. IF DESIGN OR CONSTRUCTION REQUIRES DEPTH BEYOND 42 INCHES. STRUCTURE SHALL BE REVISED TO A 48 INCH DIAMETER TY A MANHOLE.

CITY OF ST. CHARLES
ILLINOIS • SINCE 1834
Pride of the Fox

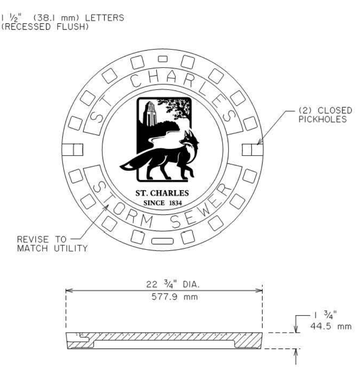
TYPE A INLET	
DATE: 3-31-2009	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. C-05



Box Culverts Sections Are Manufactured To 'ET Culvert' And/Or Applicable ASTM C-1577 Specifications According To Specific Project Requirements.

Final Laying Length of Radius Sections To Be Determined By Specific Project Requirements.

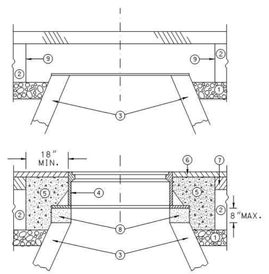
SPECIAL LETTERED WATER VAULT, SANITARY SEWER AND STORM SEWER MANHOLE COVER



HEAVY DUTY
MATERIAL ASTM A48 CL 35
MACHINED BEARING SURFACE
COVER WT: 125 LBS (56.7 kg)

CITY OF ST. CHARLES
ILLINOIS • SINCE 1834
Pride of the Fox

STANDARD COVER	
DATE: 12-16-2019	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. D-01



LEGEND

1. SUB-BASE GRANULAR MATERIAL
2. EXISTING PAVEMENT TO BE REMOVED
3. EXISTING STRUCTURE
4. FRAME AND LID (SEE NOTES)
5. CLASS SI CONCRETE
6. PROPOSED HMA SURFACE COURSE
7. PROPOSED HMA BINDER COURSE
8. PROPOSED MORTAR, STEEL SHIMS & ADJUSTING RINGS 8" MAXIMUM
9. FULL DEPTH SAW CUT

NOTES:

EXISTING FRAMES AND LIDS ARE THE PROPERTY OF THE CITY OF ST. CHARLES & SHALL BE REMOVED AND RETURNED TO THE CITY OF ST. CHARLES BY THE CONTRACTOR AND SHALL BE REPLACED AS NOTED ON PLAN.

INSTALLATION OF NEW FRAMES & LIDS WILL NOT BE PAID FOR SEPARATELY BUT ARE INCLUDED AS PART OF THE COST PER NEW STRUCTURE.

CONSTRUCTION PROCEDURES

PRIOR TO PAVEMENT MILLING AND PLACEMENT OF HMA BINDER:

A) FULL DEPTH SAW CUT 5' X 5' SQUARE OR DIAMOND AROUND CENTER OF FRAME TO BE ADJUSTED.

B) REMOVE FRAME, EXISTING PAVEMENT AND AGGREGATE MATERIAL TO A DEPTH OF 2" BELOW TOP OF MANHOLE STRUCTURE & 2" BELOW BOTTOM OF LOWEST ADJUSTMENT RING.

C) INSTALL NEW FRAME AND LID TO MATCH PROPOSED HMA PAVEMENT SURFACE GRADE USING MORTAR. STEEL SHIMS EMBEDDED IN MORTAR. AND PRECAST CONCRETE ADJUSTING RINGS.

D) COMPACT EXISTING AGGREGATE STONE BASE.

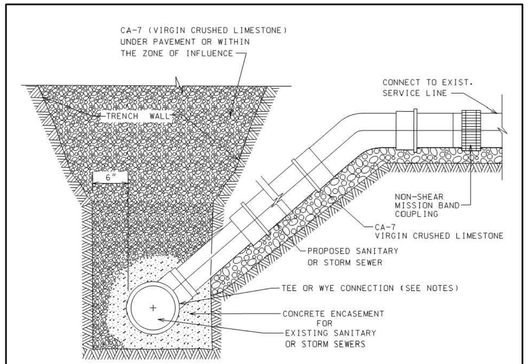
E) FILL 5'X5' SURROUNDING SPACE WITH IDOT APPROVED CLASS SI CONCRETE TO THE SAME ELEVATION OF THE TOP OF THE BINDER COURSE.

F) PAVE SURFACE COURSE OVER 5'X 5' CONCRETE COLLAR.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353. 406. 602. AND 603 OF THE STANDARD SPECIFICATIONS.

CITY OF ST. CHARLES
ILLINOIS • SINCE 1834
Pride of the Fox

FRAME & LID ADJUSTMENT WITH CONCRETE COLLAR	
DATE: 12-16-2019	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. D-02



NOTES:

1. FOR PROPOSED STORM SEWER SERVICE ≤ 6" ON RCP PIPE ≥ 15", CORE THE PIPE AND USE A BOOT CONNECTION.
2. FOR PROPOSED STORM SEWER SERVICE ≥ 8", A MANHOLE SHALL BE INSTALLED.
3. FOR CONNECTING SANITARY OR STORM SEWER SERVICE TO AN EXISTING SANITARY OR STORM SEWER ≤ 12", REMOVE A SECTION OF PIPE AND INSTALL A TEE OR WYE CONNECTION.
4. FOR CONNECTING SANITARY SEWER SERVICE TO AN EXISTING SANITARY SEWER ≥ 15", CIRCULAR SAW-CUT AND USE A HUB WYE OR TEE SADDLE CONNECTION.
5. FOR PROPOSED STORM OR SANITARY SEWER SERVICES, ENCASE ALL CONNECTIONS IN LOW STRENGTH CONCRETE TO PREVENT THE FITTINGS FROM ROTATING.
6. FOR TRENCHES WITHIN AN EXISTING PAVED SURFACE AREA, CA-7 (VIRGIN CRUSHED LIMESTONE) BACKFILL SHALL BE USED.
7. FOR PROPOSED 6" STORM SEWER SUMP LINE, INSTALL PLUG AND 2" X 4" POST AT END OF LINE.

CITY OF ST. CHARLES
ILLINOIS • SINCE 1834
Pride of the Fox

SANITARY & STORM SERVICE	
DATE: 2-20-2019	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. D-03

FOR BIDDING ONLY

DRAWN BY: CTK JOB DATE: OCTOBER 28, 2020
APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/7/2020 10:21:18 PM
CAD FILE: J:\2017\170818\CAD\Dwgs\C\82 STORM DETAILS.dwg

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
ILLINOIS DESIGN FIRM # 184.001322
420 N. FRONT STREET, SUITE 100
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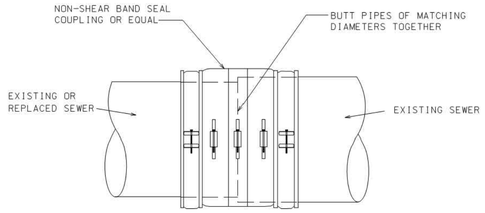
PHONE: 815.385.1778 | TOLL FREE: 800.728.7805
FAX: 815.385.1781 | HRGreen.com

FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
STORM DETAILS

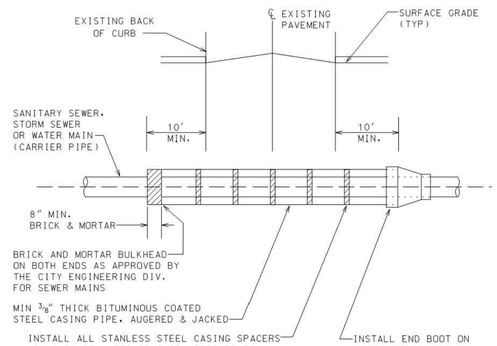
SHEET NO.
82

Xrefs: xgt-1-dh01; xc-1-details



CITY OF ST. CHARLES
ILLINOIS · SINCE 1834
Pride of the Fox

PIPE COUPLING	
DATE: 3-31-2009	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. D-04

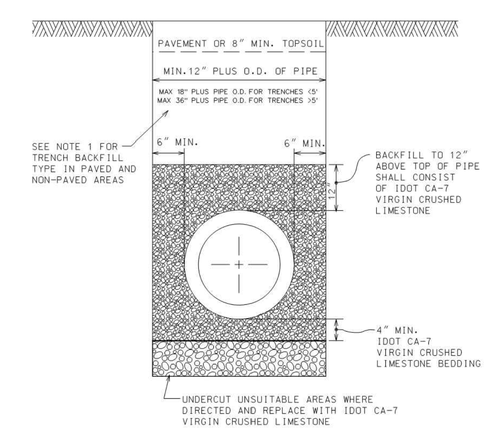


NOTES:

1. CASING PIPE IS REQUIRED UNDER ALL EXISTING ROADWAYS. OR AS OTHERWISE DIRECTED BY THE ENGINEERING DIVISION WHERE OPEN CUTS ARE NOT PERMITTED. EXCEPT FOR WATER SERVICE LINES UP TO 2" IN DIAMETER.
2. WATER MAIN CASING SPACERS SHALL BE RESTRAINED IN POSITION.
3. THE INSIDE DIAMETER OF THE CASING PIPE SHALL BE DETERMINED BY THE CONTRACTOR BUT IN NO CASE SHALL IT BE LESS THAN 8" LARGER THAN THE DIAMETER OF THE CARRIER PIPE TO ALLOW AMPLE SPACE FOR BELLS. AND CARRIER PIPE SLOPE (FOR GRAVITY PIPE).
4. ALL AUGER PITS TO BE BACKFILLED WITH IDOT CA-7 VIRGIN CRUSHED LIMESTONE MATERIAL.
5. POLY WRAPPED WATER MAIN REQUIRED IN CASING.

CITY OF ST. CHARLES
ILLINOIS · SINCE 1834
Pride of the Fox

CASING PIPE	
DATE: 11-12-2013	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. D-05

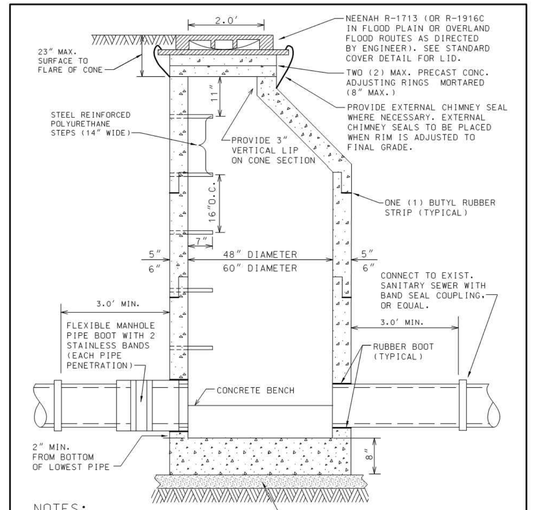


NOTES:

1. TRENCH BACKFILL MATERIAL SHALL CONSIST OF CA-7 (VIRGIN CRUSHED LIMESTONE) UNDER PAVED AREAS OR WITHIN ZONE OF INFLUENCE. OR EARTH BACKFILL IN NON-PAVED AREAS.
2. ALL MATERIALS SHALL BE PROPERLY COMPACTED PER SPECIFICATIONS (INUNDATION OR WATER JETTING NOT ALLOWED)
3. ALL TRENCH EXCAVATIONS SHALL MEET OSHA REQUIREMENTS.
4. ALL STORM SEWER SMALLER THAN 15" DIA. THAT WILL BE PUBLICLY OWNED & MAINTAINED SHALL BE RIGID PVC PIPE. MINIMUM SDR 26 WITH PUSH-ON GASKET JOINTS.

CITY OF ST. CHARLES
ILLINOIS · SINCE 1834
Pride of the Fox

RCP, DIP & PVC TRENCH DETAIL	
DATE: 3-13-2017	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. D-06

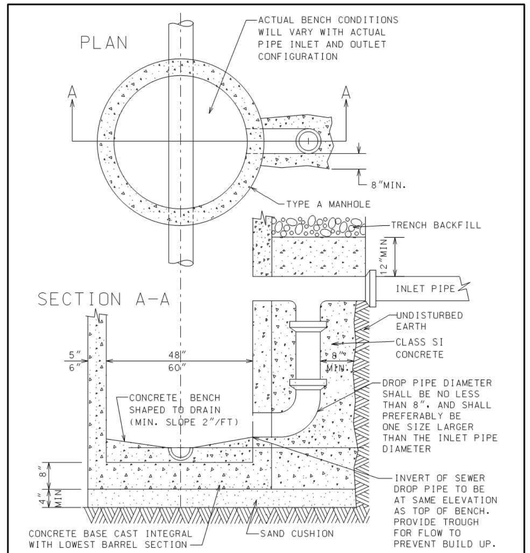


NOTES:

1. MANHOLES MUST CONFORM TO ASTM C-478.
2. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
3. BENCHES MUST BE PROVIDED IN ALL SANITARY SEWER MANHOLES
4. USE EXTERNAL LIFTING "HOLES" ONLY. BUT NOT FULL PENETRATION.
5. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.
6. PIPE PENETRATIONS TO BE RUBBER BOOTED AND INTERIOR MORTARED.
7. USE ECCENTRIC CONE ONLY.
8. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY. FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN IDOT APPROVED CONCRETE "SI" MIXTURE.

CITY OF ST. CHARLES
ILLINOIS · SINCE 1834
Pride of the Fox

SANITARY MANHOLE	
DATE: 12-16-2019	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. A-01

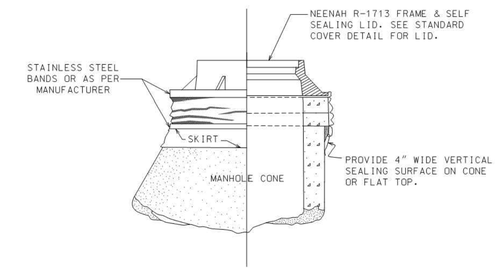


NOTES:

1. DROP MANHOLE WILL BE REQUIRED WHERE DIFFERENCE BETWEEN INVERT ELEVATION OF INLET AND DOWNSTREAM PIPE IS GREATER THAN 12".
2. NON-PRECAST OPENINGS SHALL BE CORED AND RUBBER BOOTED.

CITY OF ST. CHARLES
ILLINOIS · SINCE 1834
Pride of the Fox

DROP MANHOLE CONNECTION	
DATE: 3-31-2009	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. A-02



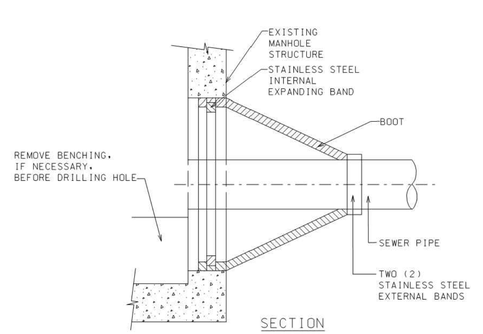
EXTERNAL CHIMNEY SEALS TO SPAN CHIMNEY HEIGHTS OF:	
0 – 3"	NARROW (6") SEAL ONLY
3 TO 6½"	STANDARD (9") SEAL ONLY
6½" TO 12"	STD. SEAL + EXTENSION
OVER 12"	SEAL + MULTI. EXTENSIONS

NOTE:

1. CHIMNEY SEALS SHALL BE INSTALLED ON ALL SANITARY SEWER SYSTEM MANHOLES THAT DO NOT RECEIVE A CONCRETE COLLAR.
2. INFISHIELD. CRETEX. OR APPROVED EQUAL EXTERNAL SEALS ARE REQUIRED. OTHER PRODUCTS OR OTHER DESIGN SOLUTIONS SHALL REQUIRE THE APPROVAL OF THE CITY ENGINEERING DEPARTMENT.
3. CHIMNEY SEALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

CITY OF ST. CHARLES
ILLINOIS · SINCE 1834
Pride of the Fox

CHIMNEY SEAL	
DATE: 12-16-2019	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. A-03



SECTION

NOTES:

1. CORE-DRILL CIRCULAR OPENING IN MANHOLE WALL OF DIAMETER TO FIT THE REQUIRED BOOT SIZE.
2. KOR-N SEAL FLEXIBLE RUBBER BOOT (MANUFACTURED BY NATIONAL POLLUTION CONTROL SYSTEMS. INC. OR AS APPROVED BY THE ENGINEERING DEPARTMENT) SHALL BE USED FOR WATERTIGHT CONNECTION.
3. CUT. SHAPE AND SLOPE NEW INVERT CHANNEL IN THE EXISTING CONCRETE BENCH FOR SMOOTH FLOW FROM NEW SANITARY SEWER CONNECTION.
4. CLEAN EXISTING MANHOLE OF ANY DIRT. CONCRETE OR DEBRIS WHICH MAY ACCUMULATE DURING THE CONSTRUCTION PROCESS.

CITY OF ST. CHARLES
ILLINOIS · SINCE 1834
Pride of the Fox

SANITARY SEWER CONNECTION TO EXISTING MANHOLE	
DATE: 3-31-2009	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. A-04

FOR BIDDING ONLY

Xrefs: xgt-1-dh01; xc-1-details

DRAWN BY: CTK JOB DATE: OCTOBER 28, 2020
APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/7/2020 10:21:23 PM
CAD FILE: J:\2017\170818\CAD\Dwgs\C\83 SANITARY DETAILS.dwg

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 — 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
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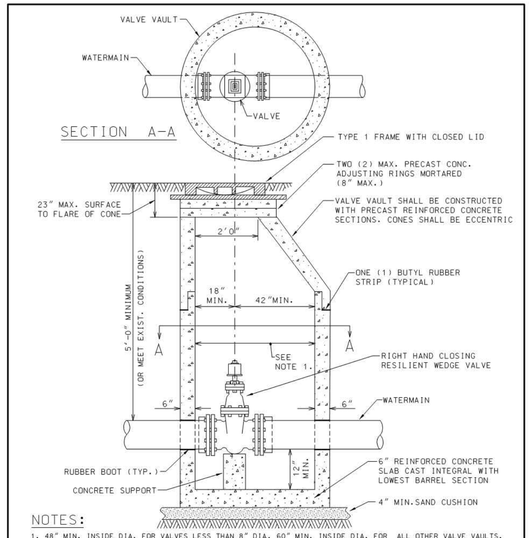
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
SANITARY DETAILS

SHEET NO.
83



NOTES:

1. 48" MIN. INSIDE DIA. FOR VALVES LESS THAN 8" DIA. 60" MIN. INSIDE DIA. FOR ALL OTHER VALVE VAULTS.
2. VALVE VAULT MUST CONFORM TO ASTM C-478.
3. VALVES MUST CONFORM TO AWWA C-515
4. VAULT SECTIONS TO BE TONGUE AND GROOVED.
5. NON-PRECAST PIPE OPENINGS TO BE CORED AND RUBBER BOOTS INSTALLED.
6. BACKFILL MATERIAL SHALL BE IDOT CA-7 VIRGIN CRUSHED LIMESTONE.
7. MECHANICAL JOINT BOLTS, NUTS & WASHERS SHALL BE COMPOSED OF CORE-TEN. ALL OTHER HEXAGONAL BOLTS, NUTS & WASHERS SHALL BE COMPOSED OF 304 GRADE STAINLESS STEEL.
8. PRIOR TO THE PLACEMENT OF FINAL LAYER OF ROADWAY, FRAMES AND ADJUSTING RINGS LOCATED WITHIN PAVED AREAS SHALL BE SET IN AN IDOT APPROVED CONCRETE "S1" MIXTURE.

CITY OF ST. CHARLES
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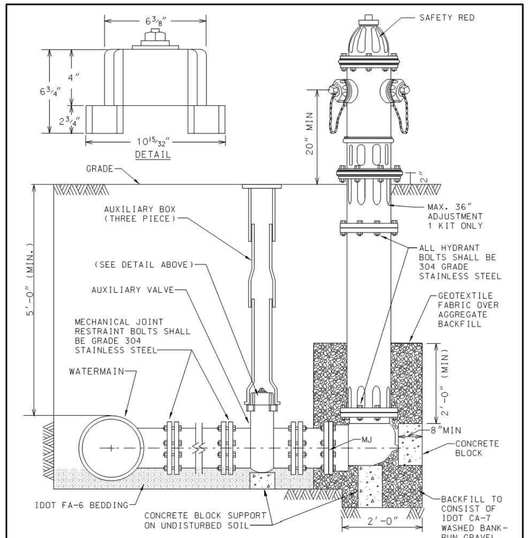
Pride of the Fox

VALVE VAULT	
DATE: 12-16-2019	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. B-01



HYDRANT SPECIFICATIONS:

MUELLER SUPER CENTURION 200. WATEROUS PACER MODEL WB-67-250. OR CLOW MEDALLION.
MECHANICAL JOINT SHOE WITH 6" RESILIENT WEDGE AUXILIARY VALVE.
5-1/4" VALVE OPENING
5' MIN. COVER OVER HYDRANT LATERAL
VALVE BOX SHALL HAVE AN INTERNAL VALVE BOX STABILIZER INSTALLED

CITY OF ST. CHARLES
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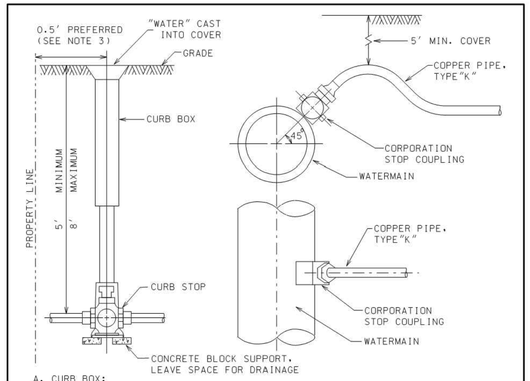
HYDRANT INSTALLATION	
DATE: 12-16-2019	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. B-04



A. CURB BOX:

MUELLER H-10300 WITH 1-1/4" I.D. UPPER SECTION AND 2" MINNEAPOLIS TAPPED BASE.
A.Y. MCDONALD 5615 1-1/4"

B. CURB STOP:

MUELLER B-25155-N (1",1½", 2")
FORD B-44-444-Q-NL 1"
B-44-666-Q-NL 1½"
B-44-777-Q-NL 2"
A.Y. MCDONALD 76104-Q 1",1½",2"
Q SERIES BRASS

C. CORPORATION STOP:

MUELLER B-25008-N (1",1-1/2", 2")
FORD FB1000 -4-Q-NL 1"
FB 1000-6-Q-NL 1-1/2"
FB 1000-7-Q-NL 2"
A.Y. MCDONALD 74701-BQ 1", 1-1/2", 2"
Q SERIES BRASS, WITH 90 SWIVEL ELBOW

NOTES:

1. PIPE SIZE CAN VARY. BUT 1" MINIMUM. OTHER APPURTENANCES SHALL REFLECT SAME.
2. COPPER PIPE SHALL BE ONE PIECE BETWEEN TAP AND CURB BOX.
3. PLACE BETWEEN SIDEWALK AND PROPERTY LINE. KEEP BOXES OUT OF SIDEWALKS AND DRIVEWAY.
4. MINIMUM OF 3' BETWEEN TAPS AND 3' TO NEAREST JOINT.
5. 1" SERVICE MAY BE DIRECTLY TAPPED INTO 6" OR LARGER MAIN. LARGER SERVICES REQUIRE A FULL CIRCLE SADDLE MADE OF GRADE 304 STAINLESS STEEL WITH NYLON WASHERS AND NITRILE GASKETS.

CITY OF ST. CHARLES
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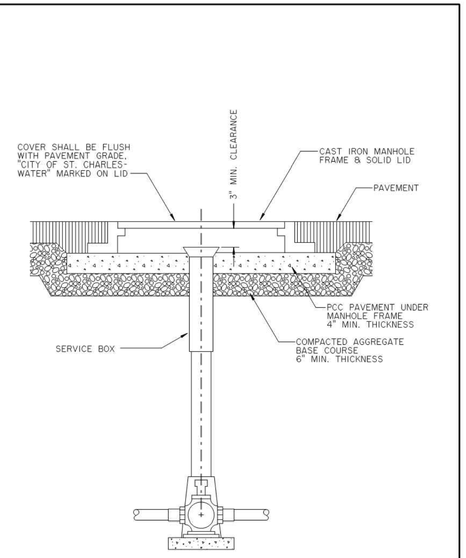
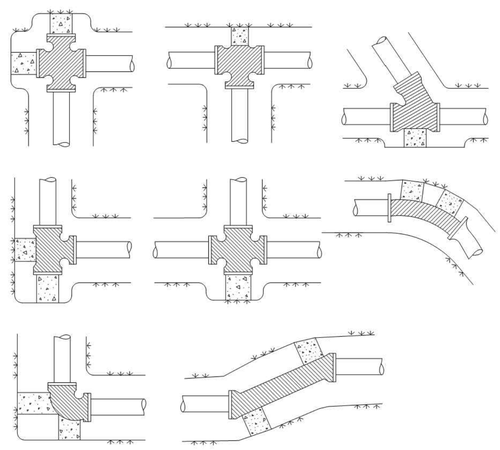
Pride of the Fox

COPPER WATER SERVICE CONNECTION DETAILS	
DATE: 12-16-2019	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. B-06



CITY OF ST. CHARLES
ILLINOIS • SINCE 1834
Pride of the Fox

SERVICE BOX IN PAVED AREA	
DATE: 5-17-2019	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. B-12



NOTES:

1. ALL BENDS OF 10° AND LARGER SHALL BE BLOCKED WITH AT LEAST 10" THICK PREFORMED CONCRETE BLOCK(S) AGAINST UNDISTURBED VERTICAL EARTH FACE.
2. ALL CONCRETE TO BE MIN. 3.000 PSI.
3. IN ADDITION TO THE ABOVE THRUST BLOCKING: ALL MECHANICAL JOINTS, BENDS OVER 10 AND FIRE HYDRANTS SHALL HAVE A "MEGALUG" RESTRAINT, OR AS APPROVED BY THE ENGINEERING DIVISION. BOLTS SHALL BE "COR-TEN".

CITY OF ST. CHARLES
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Pride of the Fox

THRUST BLOCK INSTALLATION	
DATE: 3-2-2011	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. B-08

Minimum Restrained Lenghts (in feet) back from both sides of fitting

Fitting type/nominal size	4"	6"	8"	10"	12"	16"
90 Degree Bend	17	25	32	38	45	59
45 Degree Bend	7	10	13	16	19	24
22.5 Degree Bend	3	5	6	8	9	12
11.25 Degree Bend	2	2	3	4	4	6
Dead End	39	55	73	87	103	134
Top Side Vertical Offset * (45 Degree)	16	23	30	36	43	55
Bottom Side Vertical Offset * (45 Degree)	4	6	8	10	11	15
Tee Run X Branch ** 6" by	1	17				
Tee Run X Branch ** 8" by	1	5	34			
Tee Run X Branch ** 10" by	1	1	24	49		
Tee Run X Branch ** 12" by	1	1	15	41	65	
Tee Run X Branch ** 16" by	1	1	1	26	52	95
Reducer *** 6" by	28					
Reducer *** 8" by	52	30				
Reducer *** 10" by	71	54	29			
Reducer *** 12" by	90	75	55	51		
Reducer *** 16" by	123	113	97	94	54	

* Vertical offset with minimum 10'of solid pipe between upper and lower bend.
** Tee with MINIMUM 10' solid pipe on both sides of run. Number indicates length of branch to be restrained.
*** Length back from Large End of Reducer.

CITY OF ST. CHARLES
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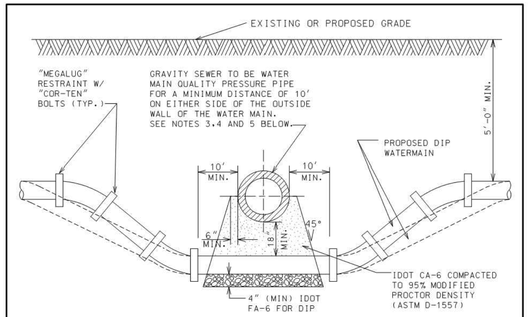
WATER MAIN RESTRAINT	
DATE: 3-31-2009	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. B-09



NOTES:

1. HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATERMAINS AND SEWERS SHALL COMPLY WITH APPLICABLE SECTIONS OF THE CITY OF ST. CHARLES ENGINEERING GUIDE OR IEPA REQUIREMENTS, WHICHEVER IS MORE STRINGENT.
2. CONTRACTOR MAY BEND WATER MAIN PIPE UNIFORMLY UNDER SEWERS WITHOUT USING FITTINGS, PROVIDED THAT JOINT DEFLECTION DOES NOT EXCEED 5 DEGREES PER JOINT FOR PIPE UNDER 14" IN DIAMETER AND 3 DEGREES PER JOINT FOR PIPE 14" AND OVER IN DIAMETER. IF FITTINGS ARE USED, CONTINUOUS STRAPPING WITH RODS, STRAPS, NUTS AND BOLTS BELOW NORMAL WATERMAIN DEPTH ARE REQUIRED, OR RETAINER GLANDS MAY BE USED IN LIEU OF STRAPPING. RETAINER GLANDS TO BE CLOW No. F-1058 OR APPROVED EQUAL.
3. ALL SANITARY SEWER (INCLUDING SERVICE) CROSSINGS WHERE THE WATER MAINS OR WATER SERVICES ARE LESS THAN 18" VERTICALLY ABOVE THE SEWER SHALL BE POLYVINYL CHLORIDE PRESSURE PIPE (SDR 26-160 PSI) AND SHALL CONFORM WITH THE LATEST REVISION OF ASTM D- 2241. JOINTS SHALL CONFORM TO ASTM D-3139 AND ELASTOMERIC GASKETS SHALL CONFORM TO ASTM F-477. THE SAME PIPE AND JOINT MATERIALS SHALL BE USED WHENEVER WATER MAIN CROSSES BELOW THE SEWER.
4. ALL STORM SEWER (INCLUDING SERVICE) CROSSINGS WHERE THE WATER MAINS ARE LESS THAN 18" VERTICALLY ABOVE THE SEWER SHALL BE REINFORCED CONCRETE PIPE, ASTM C-361, CLASS D-25, WITH BELL AND SPIGOT JOINTS AND RUBBER GASKETS, OR PVC SDR 26 AS SPECIFIED IN NOTE 3 ABOVE. THE SAME PIPE AND JOINT MATERIAL SHALL BE USED WHENEVER WATER MAIN CROSSES BELOW THE SEWER.
5. FOR NEW SEWER INSTALLATIONS CROSSING OVER WATER MAINS, THE ENTIRE RUN OF NEW SEWER SHALL BE WATER MAIN QUALITY PIPE, EXTENDING FROM STRUCTURE TO STRUCTURE ON EACH SIDE OF THE CROSSING.

CITY OF ST. CHARLES
ILLINOIS • SINCE 1834
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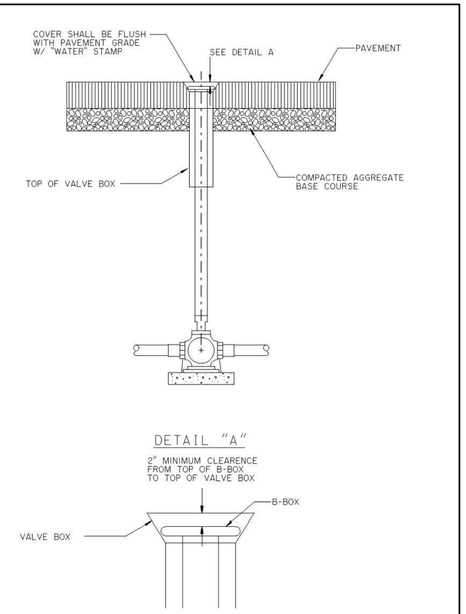
WATER MAIN CROSSING	
DATE: 3-31-2009	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. B-10



CITY OF ST. CHARLES
ILLINOIS • SINCE 1834
Pride of the Fox

BUFFALO BOX IN PAVED AREA	
DATE: 1-12-2018	NOT TO SCALE
PRINT: 4-6-2020	DRAWING NO. B-11

FOR BIDDING ONLY

DRAWN BY: CTK JOB DATE: OCTOBER 28, 2020
APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/7/2020 10:21:28 PM
CAD FILE: J:\2017\170818\CAD\Dwgs\C\84 WATER DETAILS.dwg

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

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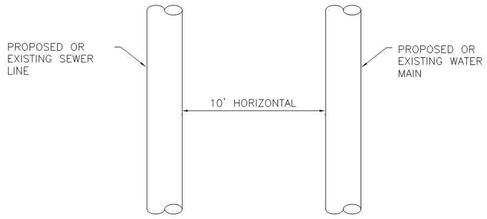
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
WATER DETAILS

SHEET NO.
84

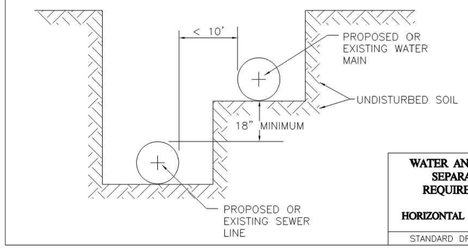
Xrefs: xgt-1-dh01; xc-1-details

WHEN **PROPOSED** SEWER (OR WATER) IS LOCATED 10 FEET OR MORE FROM EXISTING WATER (OR SEWER), NO SPECIAL CONSTRUCTION REQUIRED. SEE ARTICLE 41-2.01A (1)



PLAN VIEW

WHEN **PROPOSED** SEWER (OR WATER) IS LOCATED **LESS THAN 10 FEET** FROM EXISTING WATER (OR SEWER), DETAILS BELOW SHALL APPLY. SEE ARTICLE 41-2.01B (2)



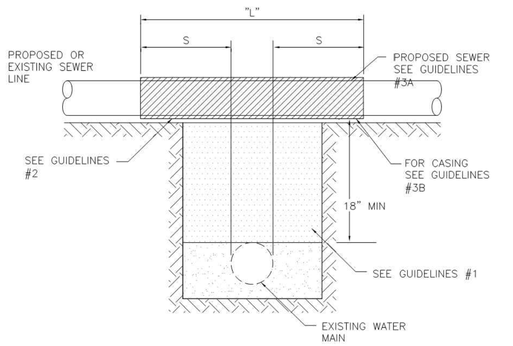
WATER AND SEWER SEPARATION REQUIREMENTS

HORIZONTAL SEPARATION

STANDARD DRAWING NO.18

PROPOSED SEWER LINE WITH 18" MINIMUM VERTICAL SEPARATION ABOVE EXISTING WATER MAIN

NOTE: COMPACTION REQUIREMENTS REFER TO ARTICLE 20-4



NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING WATER MAIN

GUIDELINES

1. IF SELECT GRANULAR BACKFILL EXISTS: REMOVE WITHIN WIDTH OF PROPOSED SEWER TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT
2. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF SEWER AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND
3. COMPACT THE LENGTH OF "L" FEET.

   A) CONSTRUCT "L" FEET OF PROPOSED SEWER OF WATER MAIN MATERIAL AND PRESSURE TEST, OR;

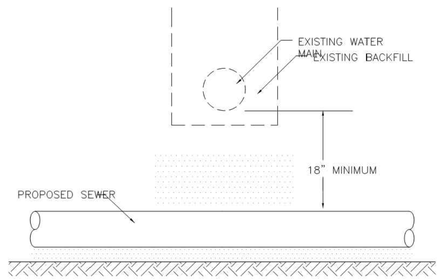
   B) USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED SEWER AND SEAL ENDS OF CASING.

WATER AND SEWER SEPARATION REQUIREMENTS

VERTICAL SEPARATION

STANDARD DRAWING NO.19

PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH 18" MINIMUM VERTICAL SEPARATION.



GUIDELINES

1. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH.

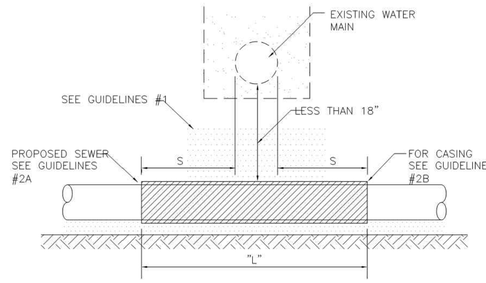
WATER AND SEWER SEPARATION REQUIREMENTS

VERTICAL SEPARATION

STANDARD DRAWING NO.20

PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH LESS THAN 18" MINIMUM VERTICAL SEPARATION.

NOTE: COMPACTION REQUIREMENTS REFER TO ARTICLE 20-4



NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING WATER MAIN

GUIDELINES

1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF SEWER AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT FOR "S" FEET ON EACH SIDE OF WATER MAIN.
2. A) CONSTRUCT "L" FEET OF PROPOSED SEWER OF WATER MAIN MATERIAL AND PRESSURE TEST, OR;

   B) USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED SEWER AND SEAL ENDS OF CASING.
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

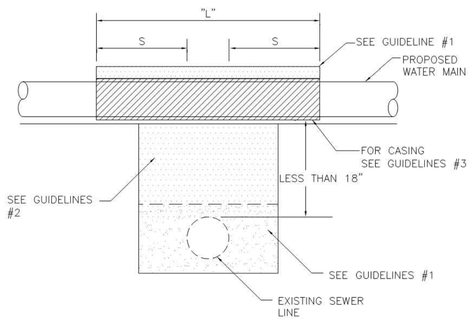
WATER AND SEWER SEPARATION REQUIREMENTS

VERTICAL SEPARATION

STANDARD DRAWING NO.21

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE WITH LESS THAN 18" VERTICAL SEPARATION

NOTE: COMPACTION REQUIREMENTS REFER TO ARTICLE 20-4



NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE.

GUIDELINES

1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND
3. COMPACT.

   USE "L" FEET OF WATER MAIN MATERIAL FOR CASING
4. OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.

   POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN CASING AND SEWER

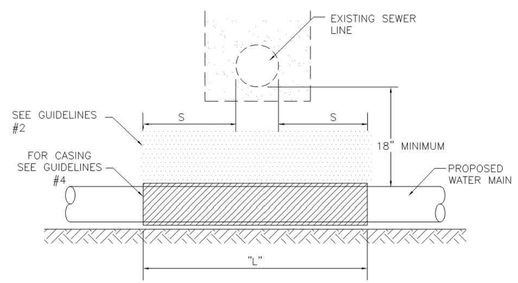
WATER AND SEWER SEPARATION REQUIREMENTS

VERTICAL SEPARATION

STANDARD DRAWING NO.22

PROPOSED WATER MAIN BELOW EXISTING SEWER LINE WITH 18" MINIMUM VERTICAL SEPARATION.

NOTE: COMPACTION REQUIREMENTS REFER TO ARTICLE 20-4



NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE

GUIDELINES

1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND
3. COMPACT.

   PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE
4. TO PREVENT DAMAGE DUE TO SETTLEMENT.

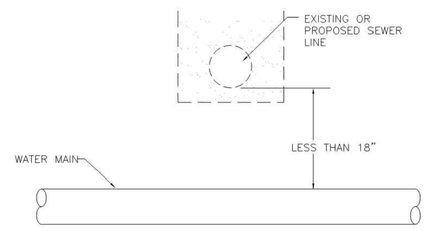
   USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.

WATER AND SEWER SEPARATION REQUIREMENTS

VERTICAL SEPARATION

STANDARD DRAWING NO.23

PLACEMENT OF WATER MAIN BELOW EXISTING OR PROPOSED SEWER LINE WITH LESS THAN 18" MINIMUM VERTICAL SEPARATION. **NOT ALLOWED.**



NOT ALLOWED*
MUST MAINTAIN 18" VERTICAL SEPARATION

WATER AND SEWER SEPARATION REQUIREMENTS

VERTICAL SEPARATION

STANDARD DRAWING NO.24

FOR BIDDING ONLY

Xrefs: xgl-1-dh01; xc-1-details

DRAWN BY:	CTK	JOB DATE:	OCTOBER 28, 2020
APPROVED:	DVM	JOB NUMBER:	170818
CAD DATE:	10/7/2020 10:21:34 PM		
CAD FILE:	J:\2017\170818\CAD\Dwgs\C\85 ILLINOIS WATER AND SEWER DETAILS.dwg		

BAR IS ONE INCH ON OFFICIAL DRAWINGS. IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen

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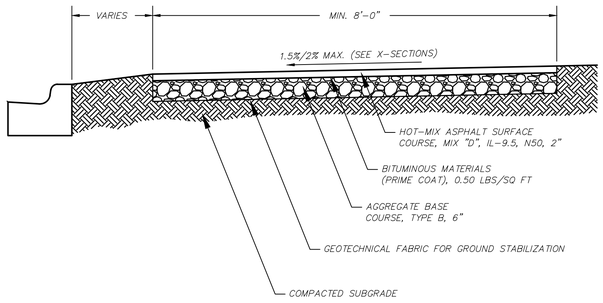
ST. CHARLES, IL

SHEETS

ILLINOIS WATER AND SEWER DETAILS

SHEET NO.

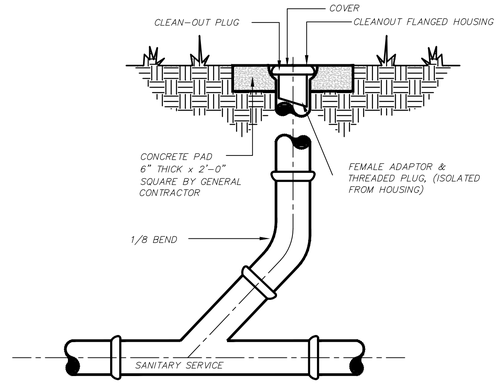
85



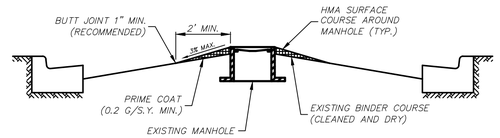
NOTES:

1. SEE THE HMA MIX TABLE ON SHEET 7 FOR HMA MIXTURE REQUIREMENTS.

HOT-MIX ASPHALT PATH TYPICAL SECTION
NOT TO SCALE



CLEANOUT DETAIL
NOT TO SCALE



603.02 Materials.

(j) Temporary HMA Ramps (Note 1)
(k) Temporary Rubber Ramps (Note 2)

Note 1. The HMA shall have maximum aggregate size of 3/8 in

Note 2. The rubber material shall be according to the following.

PROPERTY	TEST METHOD	REQUIREMENT
Durometer Hardness, Shore A	ASTM D 2240	75 ±15
Tensile Strength, psi (kPa)	ASTM D 412	300 (2000) min.
Elongation, percent	ASTM D 412	90 min.
Specific Gravity	ASTM D 792	1.0 – 1.3
Brittleness, °F (°C)	ASTM D 746	−40 (−40)°

603.07 Protection Under Traffic.

603.07 Protection Under Traffic. After the casting has been adjusted and the Class SI concrete has been placed, the work shall be protected by a barricade and two lights for at least 72 hours.

When castings are under traffic before the final surfacing operation has been started, properly sized temporary ramps shall be placed around the drainage and/or utility castings according to the following methods.

(a) Temporary HMA Ramps. Temporary HMA ramps shall be placed around the casting, flush with its surface and decreasing to a featheredged in a distance of 2 ft around the entire surface of the casting.

(b) Temporary Rubber Ramps. Temporary rubber mats shall only be used on roadways with permanent posted speeds of 40 mph or less and when the height of the casting to be protected meets the proper sizing requirements for the rubber ramps as shown below.

DIMENSION	REQUIREMENTS
Inside Opening	Outside dimensions of castings +1 in.
Thickness at inside edge	Height of casting ± 1/4 in.
Thickness at outside edge	1/4 in. max.
Width, measured from inside opening to outside edge	8 1/2 in. min.

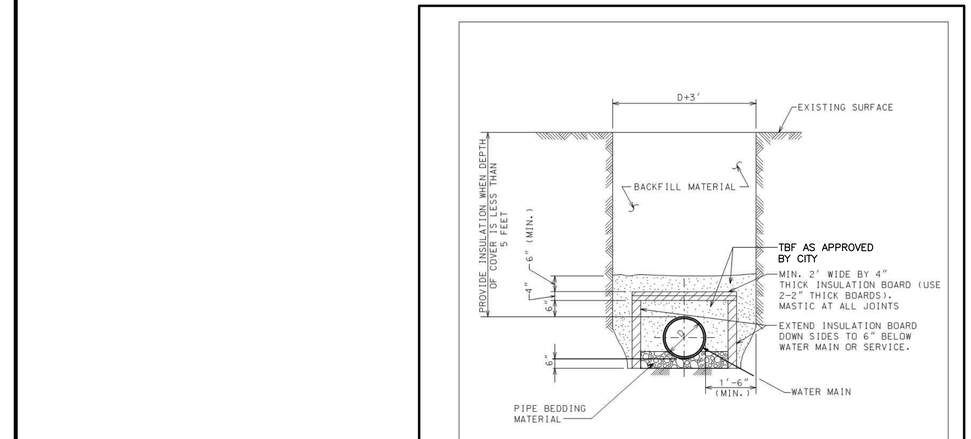
Placement shall be according to the manufacture's specifications.

Temporary ramps for castings shall remain in place until surfacing operations are undertaken within the immediate area of the structure. Prior to placing the surface course, the temporary ramp shall be removed. Excess material shall be disposed of according to Article 202.03

NOTES:

1. MANHOLES TO BE RAMPED NO LATER THAN NOVEMBER 1ST.
2. RAMP TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION BY CONTRACTOR.
3. RAMP MATERIAL TO BE REMOVED BY MILLING OR OTHERWISE REMOVED BEFORE PLACEMENT OF FINAL SURFACE COURSE.

TEMPORARY PAVEMENT RAMPS FOR DRAINAGE AND UTILITY CASTINGS
NOT TO SCALE

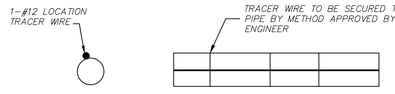


NOTES:

1. INSULATION BOARD TO BE CLOSED CELL, EXTRUDED POLYSTYRENE FOAM MEETING ASTM 578, TYPE VI, 40 PSI COMPRESSING STRENGTH (ASTM D1621) 0.1% MAX. WATER ABSORPTION (ASTM C272).
2. BACKFILL MATERIAL AROUND INSULATION MUST BE FINE SAND FREE FROM ROOTS, ORGANIC MATTER, OR OTHER INJURIOUS MATERIALS.
3. OVERLAP ALL INSULATION BOARD JOINTS.

REV:04.07

WATER MAIN TRENCH INSULATION DETAIL D-9



CROSS SECTION TOP VIEW

NOTES:

INSTALLATION OF LOCATION (TRACER) WIRE

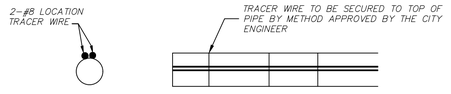
A. Install location wire with buried water lines in accordance with the manufacturer's installation instructions and as specified in Contract Documents as required.

B. Install the location wire directly on top of the buried pipe.

C. In all pipe installations, loop the location wire up into the valve boxes for connection to a locating device. The wire shall be one continuous piece from valve box to valve box up to 1250 feet maximum.

D. Location tracer wire to be considered incidental to water main installation.

FOR PVC AND DUCTILE IRON PIPES OPEN CUT INSTALLATION METHOD



CROSS SECTION TOP VIEW

NOTES:

Tracer or location wire shall be a direct burial #8 AWG Solid Wire, steel core hard drawn extra high strength horizontal directional drill tracer wire, 1150# average tensile break load, 45 mil. High molecular weight-high density blue polyethylene jacket complying with ASTM D1248, 30 volt rating. The wire shall be contiguous except at test stations, valve boxes, and where splicing is required. All splices shall be encased with a 3M-Gel Pack model No. 054007-09053. Wire insulation shall be highly resistant to alkalis, acid and other destructive agents found in soil. Location Wire shall be from Copperhead Industries, LLC, part number 1230B-HS or approved equal

Tracer wire shall be installed simultaneously with pullback of the PVC pipe. Wire shall either be wrapped around the pipe or taped to the pipe at 10 foot minimum intervals before installation.

FOR PVC AND DUCTILE IRON PIPES DIRECTIONAL DRILL INSTALLATION METHOD

TRACER WIRE INSTALLATION
NOT TO SCALE

FOR BIDDING ONLY

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APPROVED:	DVM	JOB NUMBER:	170818
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CAD FILE:	J:\2017\170818\CAD\Dwgs\C\86-87 MISC DETAILS.dwg		

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NO.	DATE	BY	REVISION DESCRIPTION

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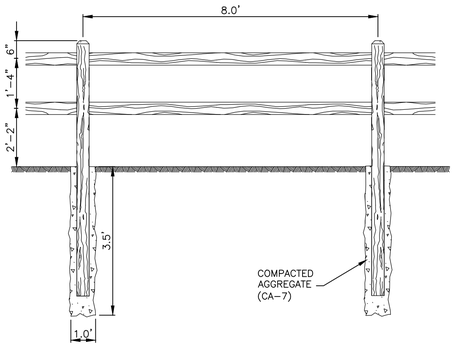
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

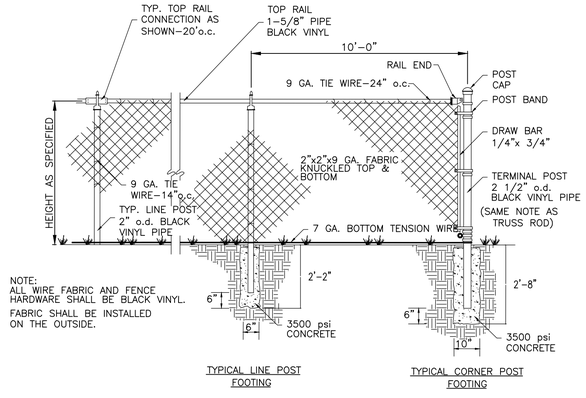
SHEETS
MISC DETAILS

SHEET NO.
86

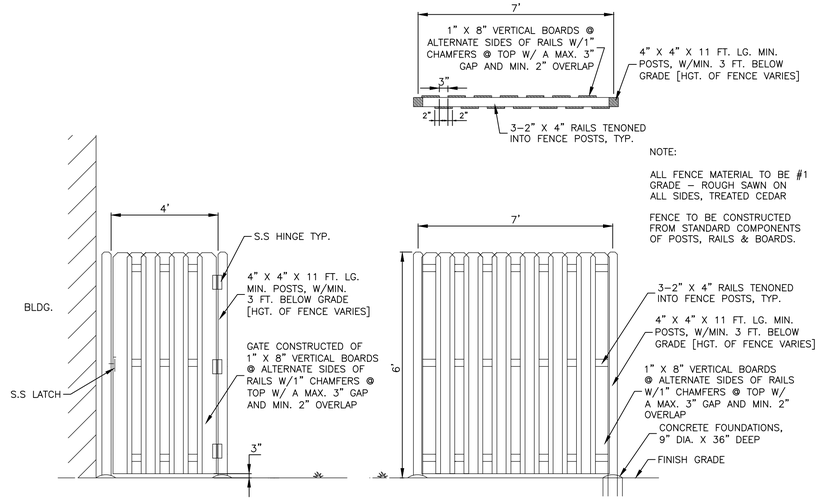
Xrefs: xg-1-dh01; xc-1-details



SPLIT RAIL FENCE
NOT TO SCALE



CHAIN LINK FENCE
NOT TO SCALE



BOARD-ON-BOARD FENCE
NOT TO SCALE

FOR BIDDING ONLY

Xrefs: xgl-1-dh01; xc-1-details

DRAWN BY: CTK JOB DATE: OCTOBER 28, 2020
APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/26/2020 2:54:50 PM
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BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

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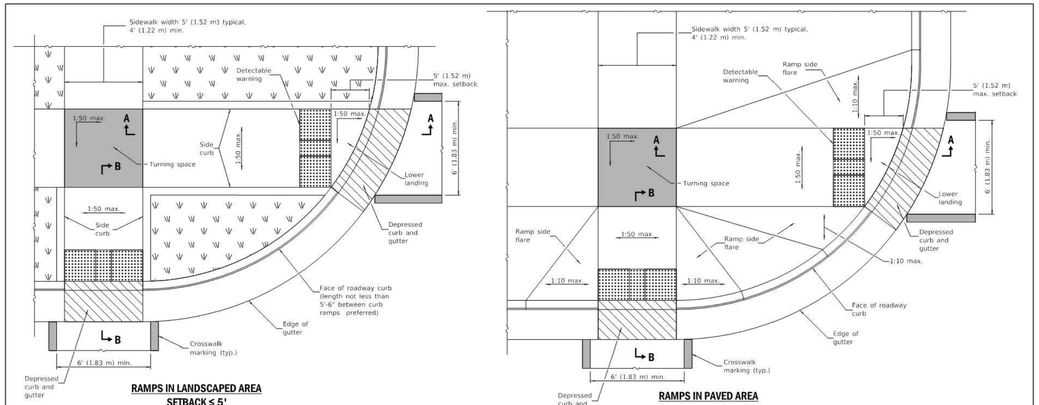
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS - PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

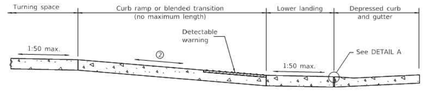
SHEETS
FENCE DETAILS

SHEET NO.
87



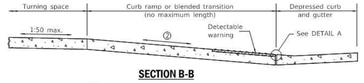
RAMPS IN LANDSCAPED AREA SETBACK ≤ 5'

RAMPS IN PAVED AREA SETBACK ≤ 5'



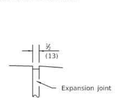
SECTION A-A

② The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.

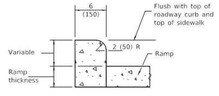


SECTION B-B

② The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.



DETAIL A



SIDE CURB DETAIL

See Sheet 2 for GENERAL NOTES.

Illinois Department of Transportation

PASSED: January 1, 2019 — ENGINEER OF POLICY AND PROCEDURES

APPROVED: January 1, 2019 — ENGINEER OF DESIGN AND ENVIRONMENT

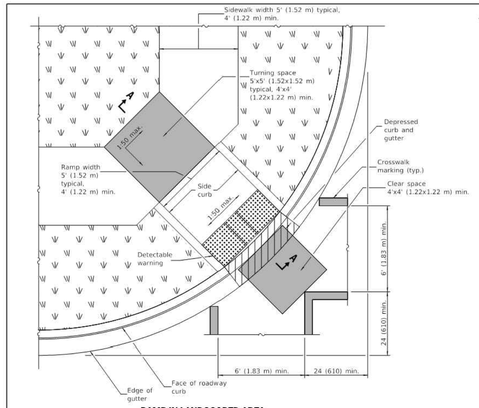
STANDARD 424001-11

DATE	REVISIONS
1-1-19	Removed "15-foot rule", added "Blended transitions" and placement tolerances for detectable warnings.
1-1-18	Omitted diagonal slope at turning spaces and lower landings.

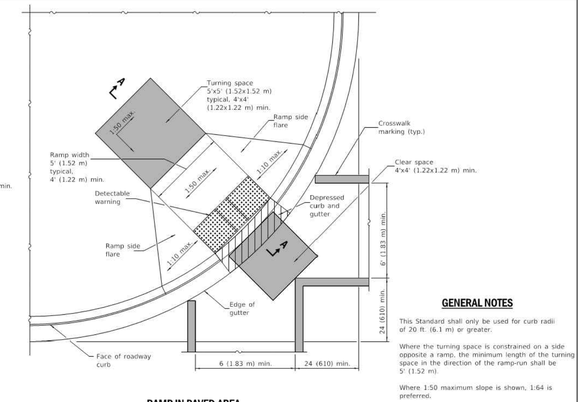
PERPENDICULAR CURB RAMPS FOR SIDEWALKS

(Sheet 1 of 2)

STANDARD 424001-11



RAMP IN LANDSCAPED AREA



RAMP IN PAVED AREA

GENERAL NOTES

This Standard shall only be used for curb radii of 20 ft. (6.1 m) or greater.

Where the turning space is constrained on a side opposite a ramp, the minimum length of the turning space in the direction of the ramp-run shall be 5' (1.52 m).

Where 1:50 maximum slope is shown, 1:64 is preferred.

Detectable warnings are shown in their ideal locations but the following placement tolerances are allowed.

Side Border - Detectable warnings should extend the full width of the walking surface (excluding flared sides) but a border along each side up to 2 in. (50 mm) in width is allowed.

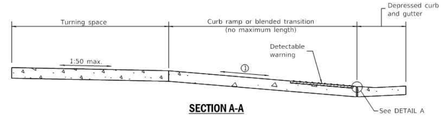
Curb Set Back - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

See Standard 606001 for details of depressed curb adjacent to curb ramp.

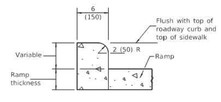
All dimensions are in inches (millimeters) unless otherwise shown.

DETAIL A



SECTION A-A

① The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.



SIDE CURB DETAIL

Illinois Department of Transportation

PASSED: January 1, 2021 — ENGINEER OF POLICY AND PROCEDURES

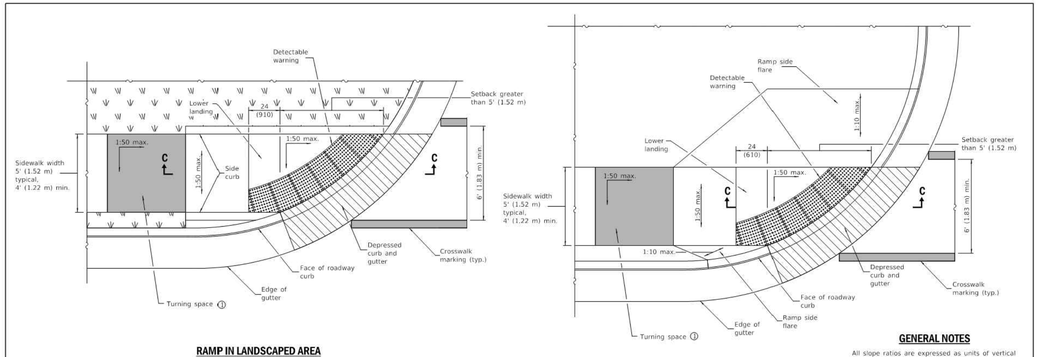
APPROVED: January 1, 2021 — ENGINEER OF DESIGN AND ENVIRONMENT

STANDARD 424006-05

DATE	REVISIONS
1-1-21	Clarified minimum crosswalk width and locations.
1-1-19	Removed "15-foot rule", added "blended transitions" and placement tolerances for detectable warnings.

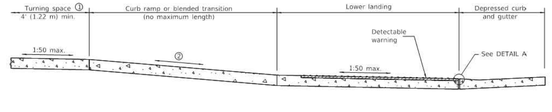
DIAGONAL CURB RAMPS FOR SIDEWALKS

STANDARD 424006-05



RAMP IN LANDSCAPED AREA SETBACK > 5'

RAMP IN PAVED AREA SETBACK > 5'



SECTION C-C

① This turning space not required for blended transitions.

② The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where the turning space is constrained on a side opposite a ramp, the minimum length of the turning space in the direction of the ramp-run shall be 5' (1.52 m).

Where 1:50 maximum slope is shown, 1:64 is preferred.

Detectable warnings are shown in their ideal locations but the following placement tolerances are allowed.

Side Border - Detectable warnings should extend the full width of the walking surface (excluding flared sides) but a border along each side up to 2 in. (50 mm) in width is allowed.

Curb Set-Back - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED: January 1, 2019 — ENGINEER OF POLICY AND PROCEDURES

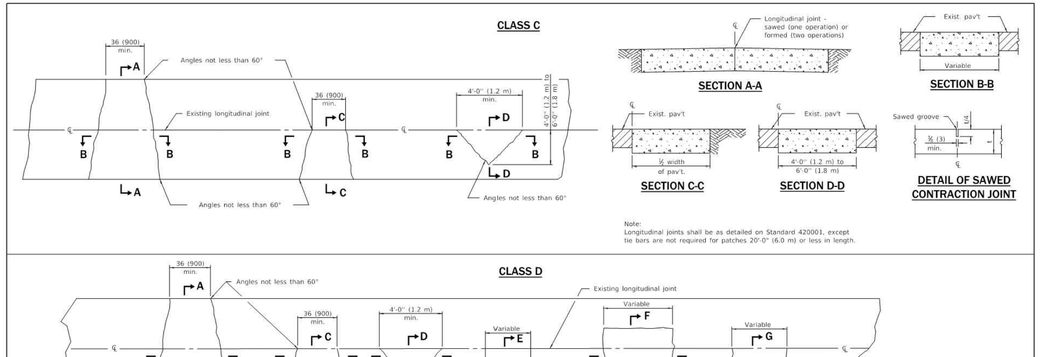
APPROVED: January 1, 2019 — ENGINEER OF DESIGN AND ENVIRONMENT

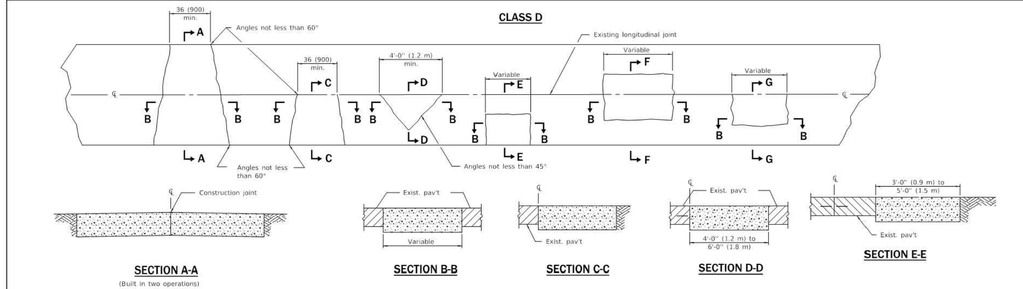
STANDARD 424001-11

PERPENDICULAR CURB RAMPS FOR SIDEWALKS

(Sheet 2 of 2)

STANDARD 424001-11





GENERAL NOTES

Existing tie bars shall be either cut or removed. Marginal bars shall be cut.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED: January 1, 2008 — ENGINEER OF POLICY AND PROCEDURES

APPROVED: January 1, 2008 — ENGINEER OF DESIGN AND ENVIRONMENT

STANDARD 442201-03

DATE	REVISIONS
1-1-08	Switched units to English (metric).
1-1-07	Revised Note for Class C patches.

CLASS C and D PATCHES

STANDARD 442201-03

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APPROVED: DVM — JOB NUMBER: 170818

CAD DATE: 10/7/2020 10:21:52 PM

CAD FILE: J:\2017\170818\CAD\Dwgs\C\88 HIGHWAY STANDARDS.dwg

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"

IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

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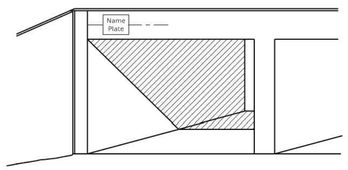
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
HIGHWAY STANDARDS

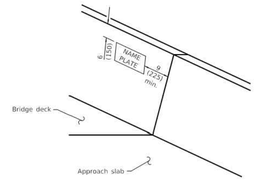
SHEET NO.
88

Xrefs: xgl-1-dh01; xc-1-details



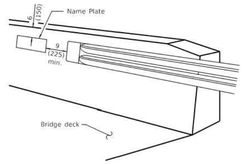
MULTI-SPAN CULVERTS

(Unless otherwise noted on the plans, name plates are not required for stuctures less than 20' (6.1 m) in length)



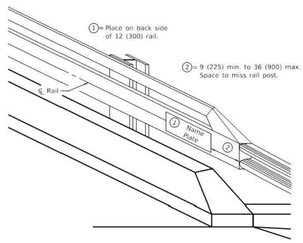
PARAPET

(Typical)

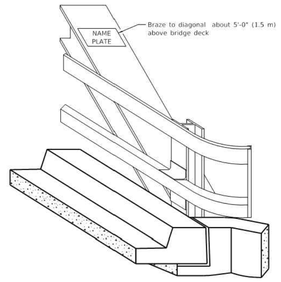


PARAPET

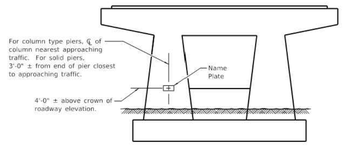
(Terminated at end of bridge)



STEEL RAILS



TRUSSES



PIERS ON FAI ROUTES

GENERAL NOTES

On one-way traffic structures, place name plate on right side of approach end. On two-way traffic structures, place name plate on right side of approach end while looking in the direction of increasing stationing.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

APPROVED: January 1, 2020 — ENGINEER OF BRIDGES AND STRUCTURES

APPROVED: January 1, 2020 — ENGINEER OF DESIGN AND ENVIRONMENT

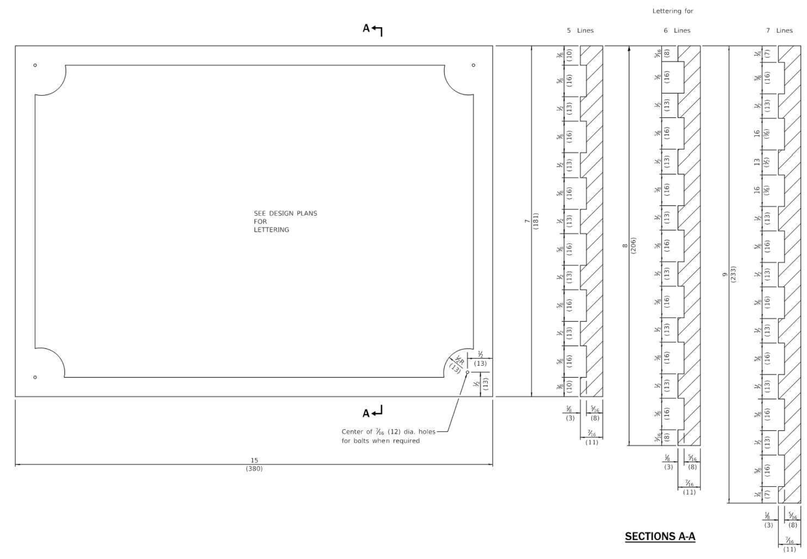
STANDARD 515001-04

DATE	REVISIONS
1-1-20	Revised F-shape to constant slope parapet.
1-1-09	Switched units to English (metric).
	Added pier detail.
1-1-02	Removed Placing: note on sht. 2.
	Added braze note on sht. 1.

NAME PLATE FOR BRIDGES

(Sheet 1 of 2)

STANDARD 515001-04



SECTIONS A-A

NOTE
Border and lettering:
Raised 1/8 (3), square cut and not tapered.

Illinois Department of Transportation

APPROVED: January 1, 2020 — ENGINEER OF BRIDGES AND STRUCTURES

APPROVED: January 1, 2020 — ENGINEER OF DESIGN AND ENVIRONMENT

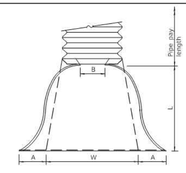
STANDARD 515001-04

NAME PLATE FOR BRIDGES

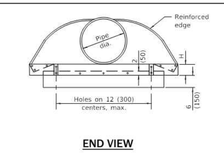
(Sheet 2 of 2)

STANDARD 515001-04

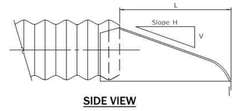
PIPE DIA.	THICKNESS	DIMENSIONS A	B	H	L	W	SLOPE (Approx.) (V:H)	BODY
		1± (25)	(max.)	1± (25)	1½± (38)	2± (50)		
12 (300)	0.064 (1.63)	6 (150)	6 (150)	6 (150)	21 (535)	24 (610)	1:2½	1 Pc.
15 (375)	0.064 (1.63)	7 (180)	8 (205)	6 (150)	26 (660)	30 (760)	1:2½	1 Pc.
18 (450)	0.064 (1.63)	8 (205)	10 (255)	6 (150)	31 (785)	36 (915)	1:2½	1 Pc.
21 (525)	0.064 (1.63)	9 (230)	12 (305)	5 (150)	36 (915)	42 (1.065 m)	1:2½	1 Pc.
24 (600)	0.064 (1.63)	10 (255)	13 (330)	6 (150)	41 (1.040 m)	48 (1.220 m)	1:2½	1 Pc.
30 (750)	0.079 (2.01)	12 (305)	16 (405)	8 (205)	51 (1.295 m)	60 (1.525 m)	1:2½	1 Pc.
36 (900)	0.079 (2.01)	14 (355)	19 (480)	9 (230)	60 (1.525 m)	72 (1.830 m)	1:2½	2 Pc.
42 (1050)	0.109 (2.77)	16 (405)	22 (560)	11 (280)	69 (1.750 m)	84 (2.135 m)	1:2½	2 Pc.
48 (1200)	0.109 (2.77)	18 (455)	27 (685)	12 (305)	78 (1.980 m)	90 (2.285 m)	1:2½	2 Pc.
54 (1350)	0.109 (2.77)	18 (455)	30 (760)	12 (305)	84 (2.135 m)	102 (2.590 m)	1:2	2 Pc.
60 (1500)	0.109 (2.77)	18 (455)	33 (840)	12 (305)	87 (2.210 m)	114 (2.895 m)	1:1½	3 Pc.
66 (1650)	0.109 (2.77)	18 (455)	36 (915)	12 (305)	87 (2.210 m)	120 (3.050 m)	1:1½	3 Pc.
72 (1800)	0.109 (2.77)	18 (455)	39 (990)	12 (305)	87 (2.210 m)	126 (3.200 m)	1:1⅔	3 Pc.
78 (1950)	0.109 (2.77)	18 (455)	42 (1.065 m)	12 (305)	87 (2.210 m)	132 (3.355 m)	1:1½	3 Pc.
84 (2250)	0.109 (2.77)	18 (455)	45 (1.145 m)	12 (305)	87 (2.210 m)	138 (3.505 m)	1:1⅔	3 Pc.



PLAN



END VIEW



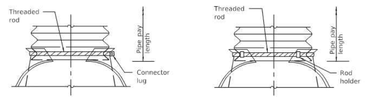
SIDE VIEW

END SECTION

NOTES

For 60 (1500) thru 84 (2250) sizes, reinforced edges shall be supplemented with stiffener angles. The angles shall be 2x2x5(51x51x6.4) for 60 (1500) thru 72 (1800) diameter and 2½x2½x½ (64x64x6.4) for 78 (1950) thru 84 (2250) diameter. The angles shall be attached by ⅜ (M10) rivets or bolts.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).



TYPE 1
For 12 (300) thru 24 (600) only (See Note 1)

TYPE 2
For 30 (750) and 36 (900) only (See Note 1)

TYPE 3
(See Note 2)

TYPE 4
(See Note 3)

ALTERNATE STRAP CONNECTOR

(For Type 1 only)

1 (25) wide, 0.109 (2.77) thick strap with standard ½x6 (M12x150) band bolt and nut.

CONNECTIONS OF END SECTIONS

NOTES

1. Types 1 and 2 for pipes with annular ends only.
2. Type 3 connection may be used for all pipe sizes and includes 12 (300) of the pipe length. The connector section shall be attached to the end section by rivets or bolts and shall be the same metal thickness as the end section. Stub shall be either 2½ (68) pitch x ½ (13) depth or 3 (75) pitch x 1 (25) depth annular corrugated pipe.
3. Type 4 connection can be used for all pipe sizes. Coupler shall be 2½ x ½ (68x13) dimple, hugger, or annular band of 3x1 (75x25). The dimple, hugger, or annular band may be used with corrugated metal pipes having annular ends. For corrugated metal pipes having helical ends, only the dimple band will be allowed.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED: January 1, 2021 — ENGINEER OF POLICY AND PROCEDURES

APPROVED: January 1, 2021 — ENGINEER OF DESIGN AND ENVIRONMENT

STANDARD 542401-04

DATE	REVISIONS
1-1-21	Revised THICKNESS values in table.
1-1-18	Renamed standard.

METAL FLARED END SECTION FOR PIPE CULVERTS

STANDARD 542401-04

FOR BIDDING ONLY

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APPROVED: DVM — JOB NUMBER: 170818
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BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

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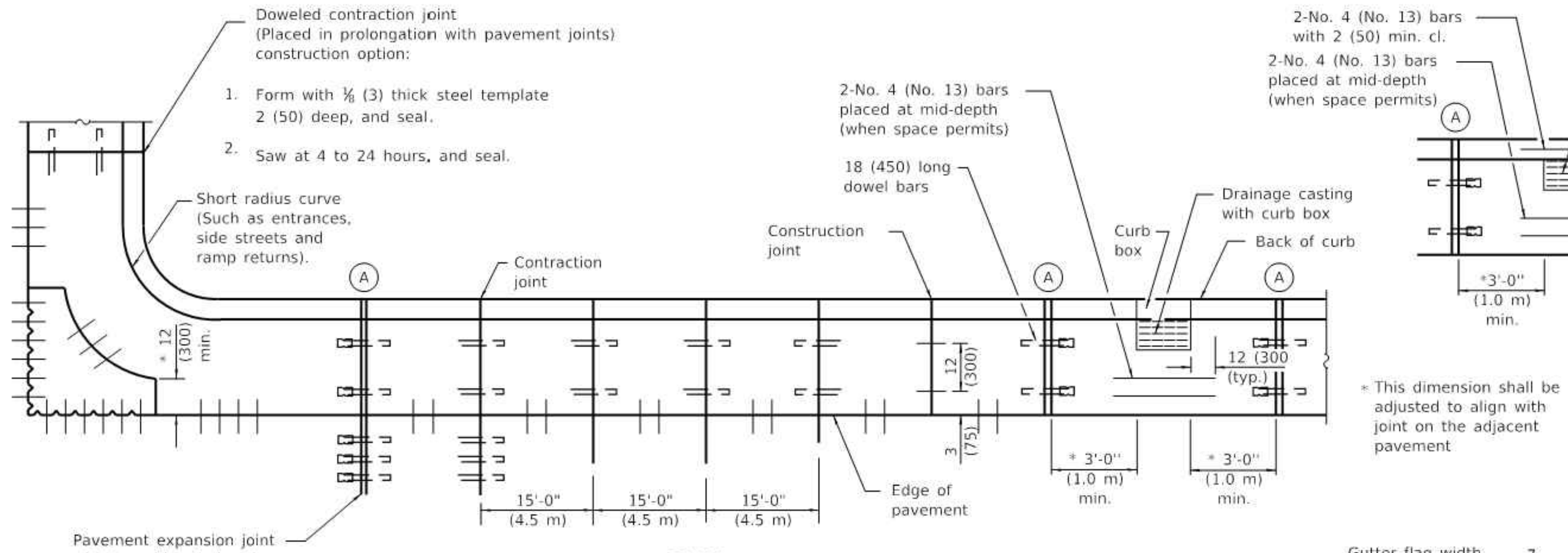
FAX: 815.385.1781 | HRGreen.com

FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

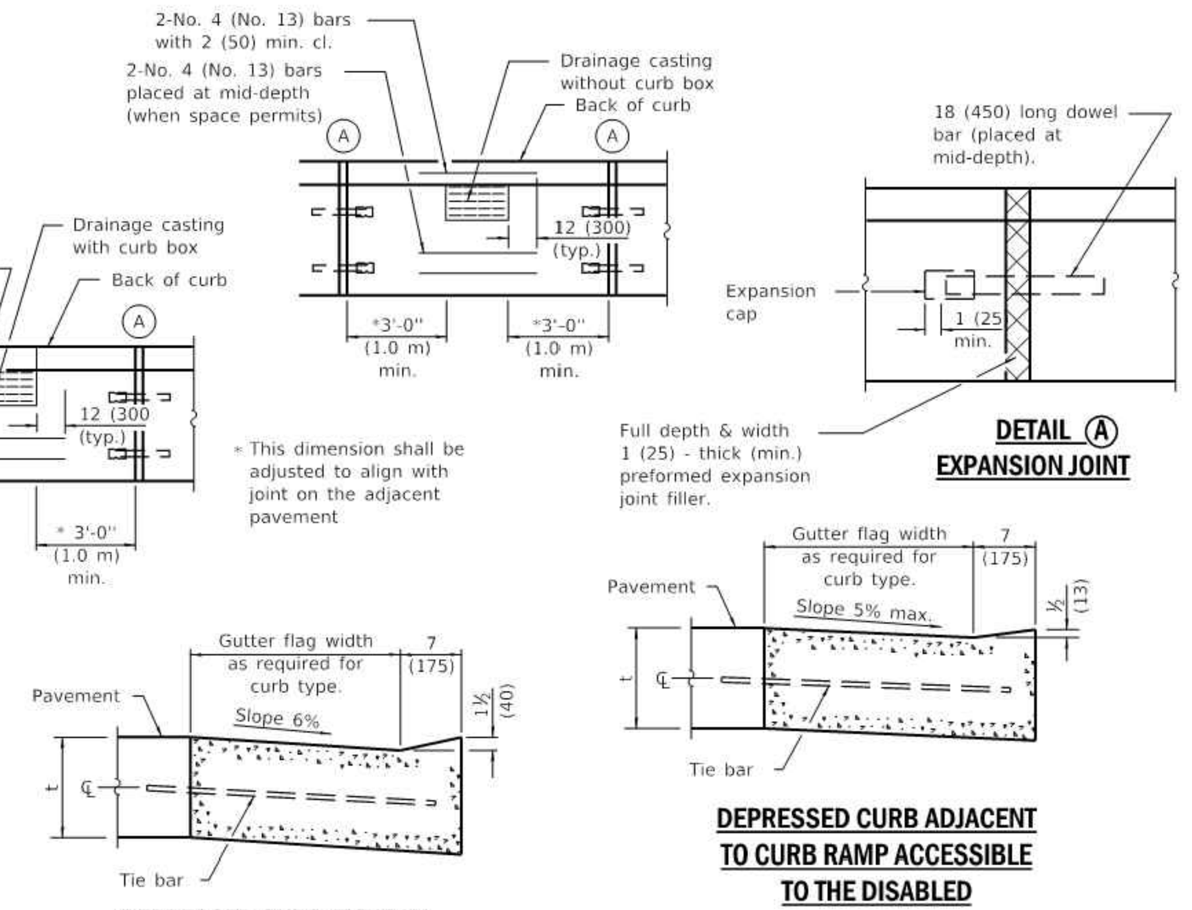
SHEETS
HIGHWAY STANDARDS

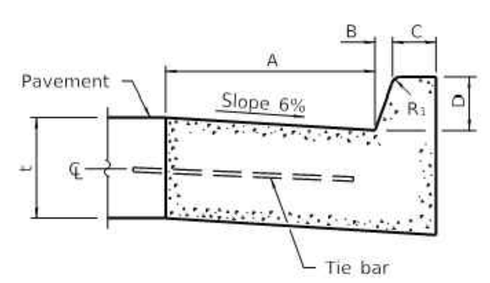
SHEET NO.
89

Xrefs: xgl-1-dh01; xc-1-details

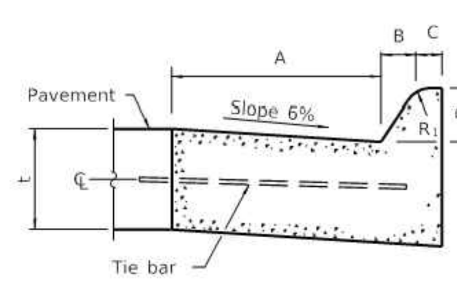


PLAN
ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE





BARRIER CURB

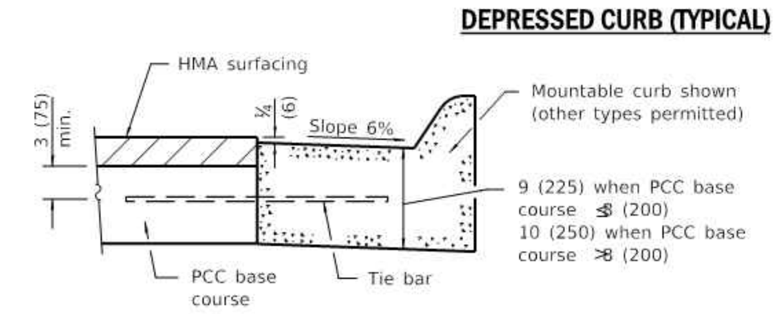


MOUNTABLE CURB

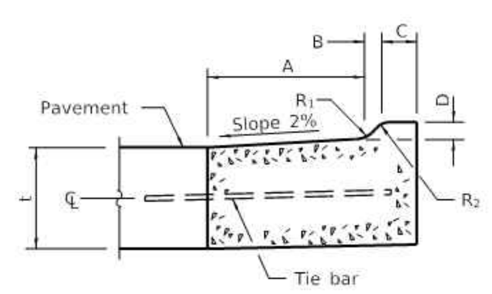
TABLE OF DIMENSIONS BARRIER CURB					
TYPE	A	B	C	D	R1
B-6.06 ✱ (B-15.15)	6 (150)	1 (25)	6 (150)	6 (150)	1 (25)
B-6.12 (B-15.3)	12 (300)	1 (25)	6 (150)	6 (150)	1 (25)
B-6.18 (B-15.45)	18 (450)	1 (25)	6 (150)	6 (150)	1 (25)
B-6.24 (B-15.60)	24 (600)	1 (25)	6 (150)	6 (150)	1 (25)
B-9.12 (B-22.30)	12 (300)	2 (50)	5 (125)	9 (225)	1 (25)
B-9.18 (B-22.45)	18 (450)	2 (50)	5 (125)	9 (225)	1 (25)
B-9.24 (B-22.60)	24 (600)	2 (50)	5 (125)	9 (225)	1 (25)

✱ For corner islands only.

TABLE OF DIMENSIONS MOUNTABLE CURB						
TYPE	A	B	C	D	R1	R2
M-2.06 (M-5.15)	6 (150)	2 (50)	4 (100)	2 (50)	3 (75)	2 (50)
M-2.12 (M-5.30)	12 (300)	2 (50)	4 (100)	2 (50)	3 (75)	2 (50)
M-4.06 (M-10.15)	6 (150)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-4.12 (M-10.30)	12 (300)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-4.18 (M-10.45)	18 (450)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-4.24 (M-10.60)	24 (600)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-6.06 (M-15.15)	6 (150)	6 (150)	2 (50)	6 (150)	2 (50)	NA
M-6.12 (M-15.30)	12 (300)	6 (150)	2 (50)	6 (150)	2 (50)	NA
M-6.18 (M-15.45)	18 (450)	6 (150)	2 (50)	6 (150)	2 (50)	NA
M-6.24 (M-15.60)	24 (600)	6 (150)	2 (50)	6 (150)	2 (50)	NA



ADJACENT TO PCC BASE COURSE WITH HMA SURFACING



M-2.06 (M-5.15) and M-2.12 (M-5.30)

GENERAL NOTES

The bottom slope of combination curb and gutter constructed adjacent to pcc pavement shall be the same slope as the subbase or 6% when subbase is omitted.

t = Thickness of pavement.

Longitudinal joint tie bars shall be No. 6 (No. 19) at 36 (900) centers in accordance with details for longitudinal construction joint shown on Standard 420001.

A minimum clearance of 2 (50) between the end of the tie bar and the back of the curb shall be maintained.

The dowel bars shown in contraction joints will only be required for monolithic construction.

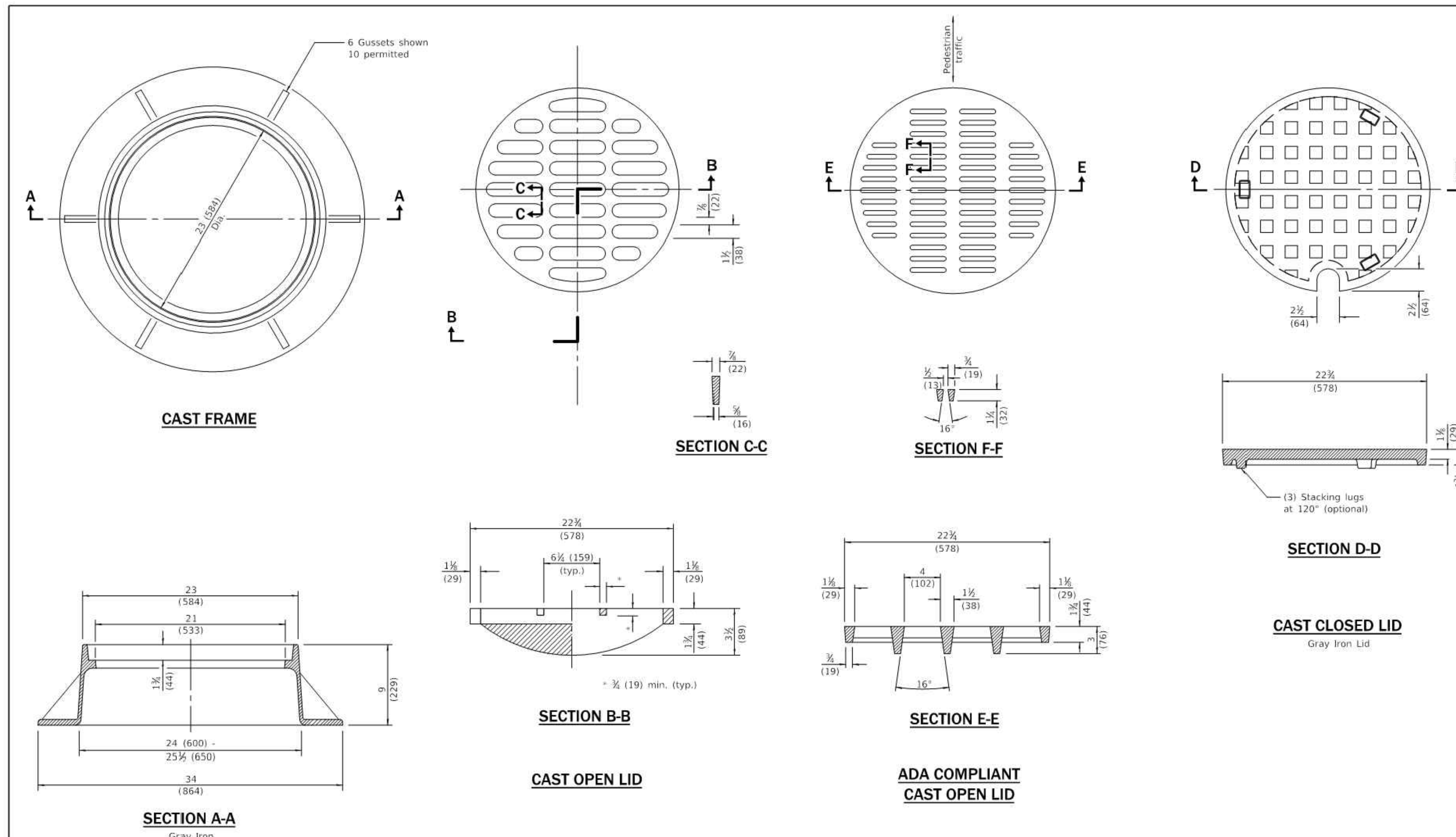
See Standard 606301 for details of corner islands.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation
PASSED January 1, 2018 Michael Brand ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2018 Maureen M. Addis ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-97

DATE	REVISIONS
1-1-18	Revised General Note for tie bar spacing to 36 (900) cts.
1-1-15	Added B-6.06 (B-15.15) barrier curb and gutter to table (corner islands only).

CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
(Sheet 1 of 2)
STANDARD 606001-07

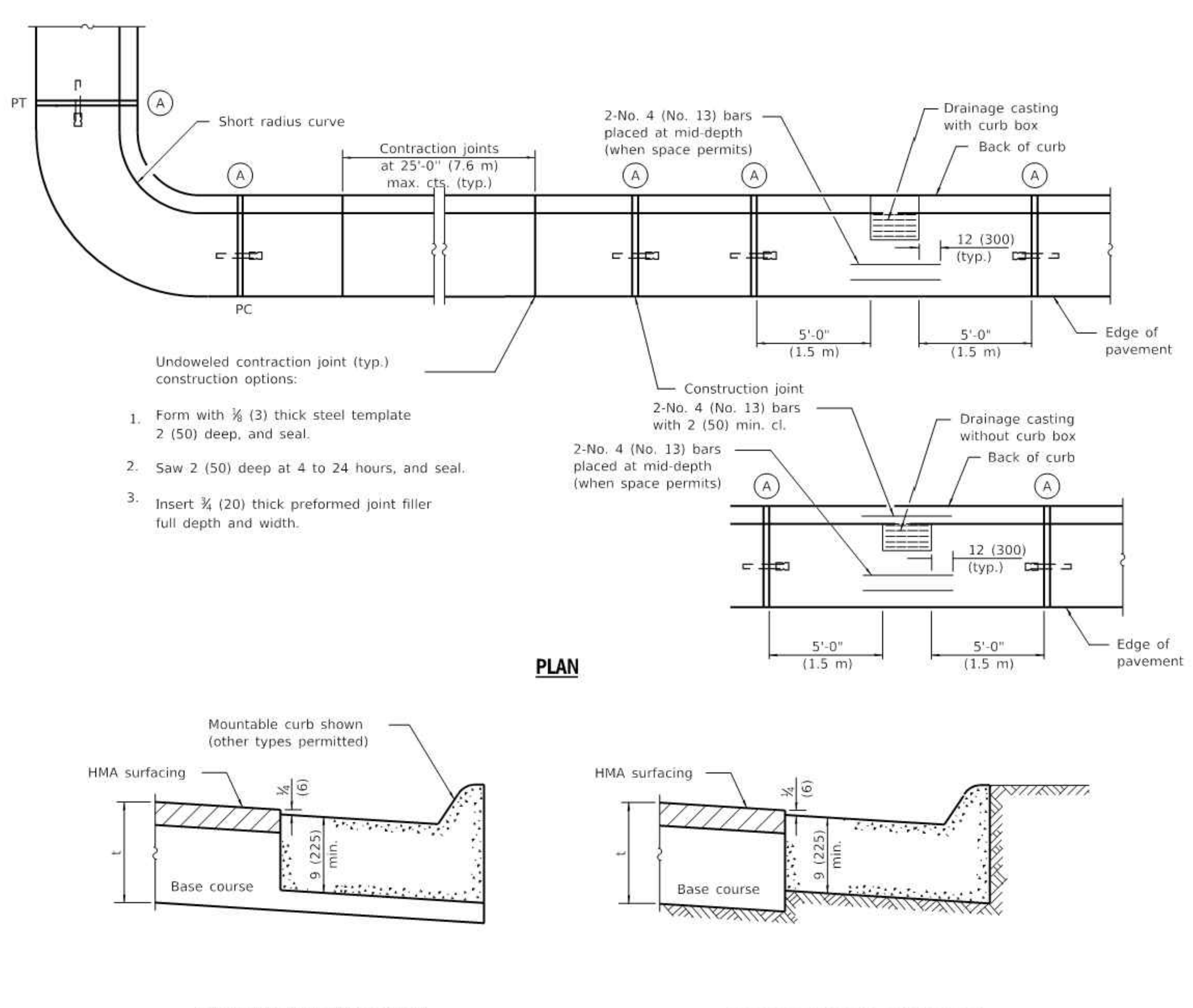


All dimensions are in inches (millimeters) unless otherwise shown.

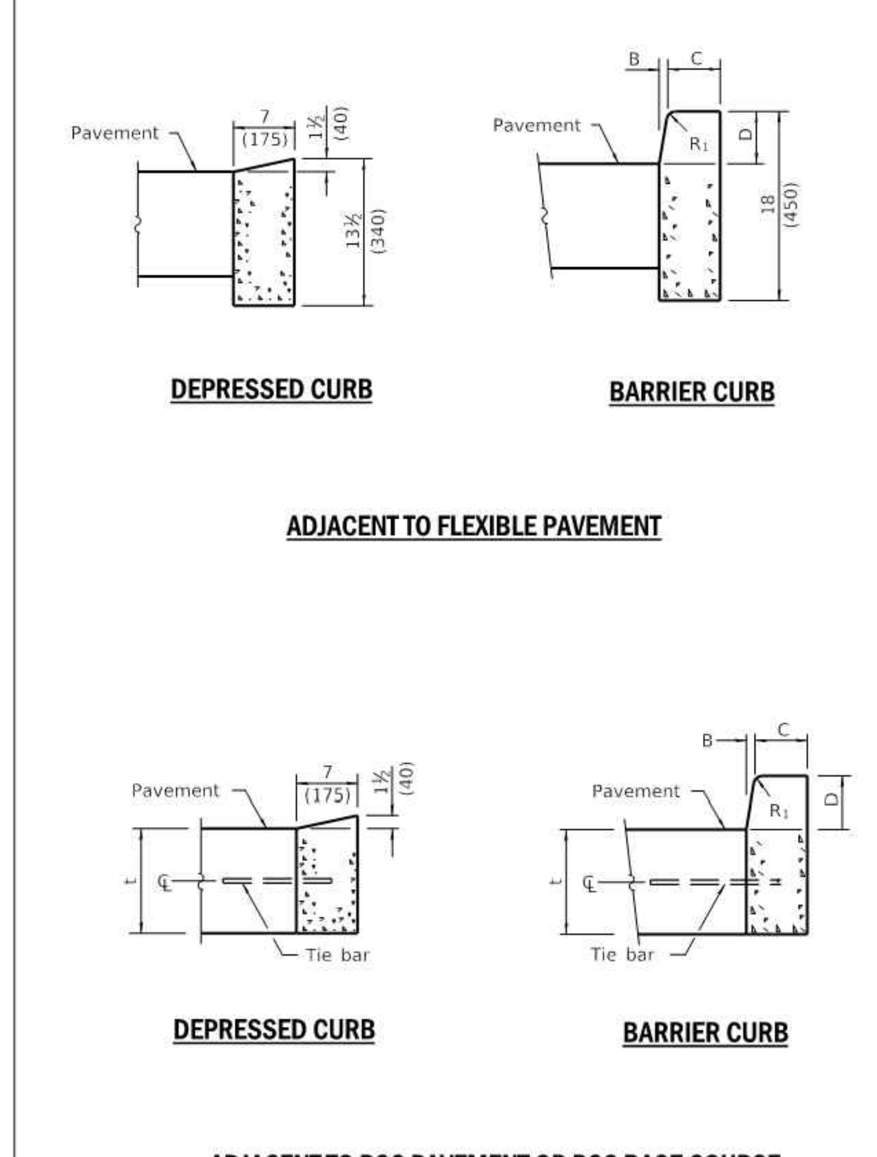
Illinois Department of Transportation
PASSED January 1, 2020 ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2020 ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-97

DATE	REVISIONS
1-1-20	Revised dimension in Section B-B of cast open lid.
1-1-15	Revised dimensioning of frame. Added ADA compliant open lid.
1-1-09	Switched units to English (metric).

FRAME AND LIDS TYPE 1
STANDARD 604001-05



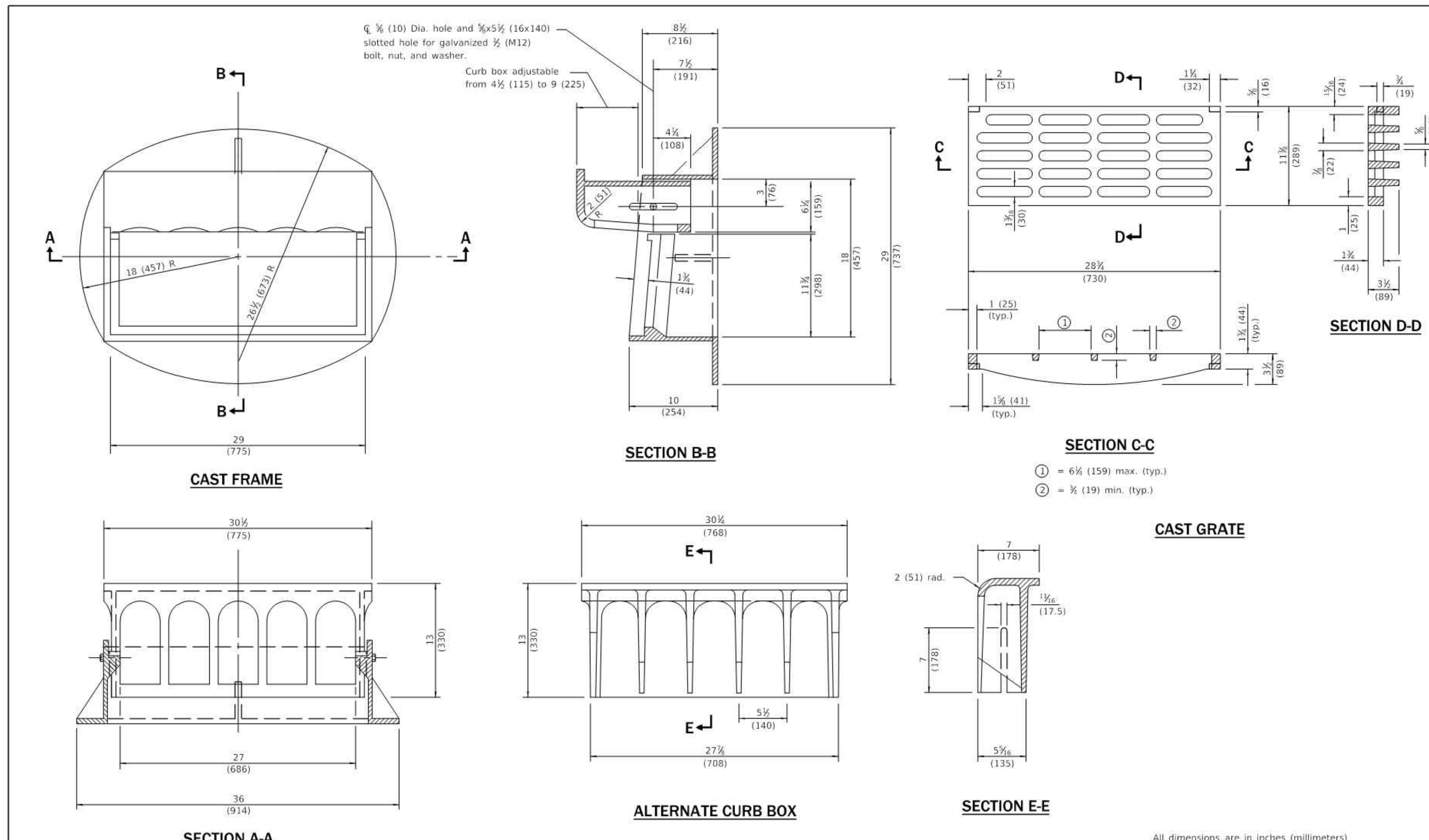
ADJACENT TO FLEXIBLE PAVEMENT



CONCRETE CURB TYPE B

Illinois Department of Transportation
PASSED January 1, 2018 Michael Brand ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2018 Maureen M. Addis ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-97

CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
(Sheet 2 of 2)
STANDARD 606001-07



All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation
PASSED January 1, 2015 Michael Brand ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015 ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-97

DATE	REVISIONS
1-1-15	Revised dimensions of frame and alternate curb box.
4-1-09	Switched units to English (metric).

FRAME AND GRATE TYPE 11
STANDARD 604051-04

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BAR IS ONE INCH ON OFFICIAL DRAWINGS.
0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

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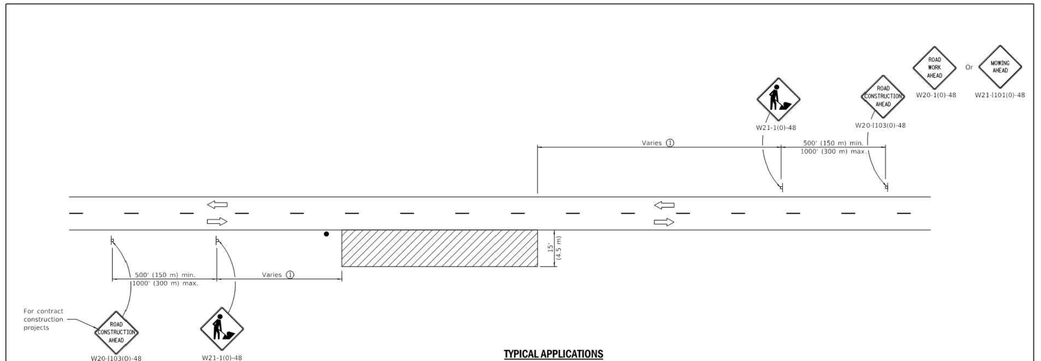
ST. CHARLES, IL

SHEETS
HIGHWAY STANDARDS

SHEET NO.
90

Xrefs: xgt-1-dh01; xc-1-details



TYPICAL APPLICATIONS

Shoulder work
Utility operations

(1) Minimum distance is 200' (60 m). Maximum distance to be determined by the Engineer but should not exceed ½ the length required for one normal working day's operation, or 4 miles (6.4 km) whichever is less.

SYMBOLS

Work area

Sign

Flagger with traffic control sign when required

GENERAL NOTES

This Standard is used where at any time, any vehicle, equipment, workers or their activities require an intermittent or continuous moving operation on the shoulder, where the average speed is 1 mph (2 km/h) or less.

When the work operation does not exceed 60 minutes, traffic control may be according to Standard 701301.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

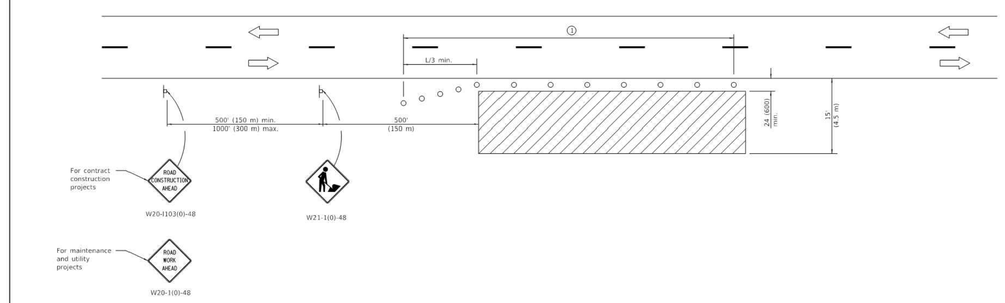
PASSED January 1, 2014 — ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2014 — ENGINEER OF DESIGN AND ENVIRONMENT

ILLINOIS DEPARTMENT OF TRANSPORTATION

DATE	REVISIONS
1-1-14	Revised workers sign
	number to agree with
	current MUTCD.
1-1-13	Omitted text 'WORKERS'
	sign.

OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY

STANDARD 701011-04



TYPICAL APPLICATIONS

Utility operations
Culvert extensions
Side slope changes
Guardrail installation and maintenance
Delineator installation
Landscaping operations
Shoulder repair
Sign installation and maintenance

SYMBOLS

Work area

Sign

Cone, drum or barricade

(1) When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24 (600) from the edge of pavement.

Calculate L as follows:

SPEED LIMIT	FORMULAS English	(Metric)
40 mph (70 km/h) or less:	$L=\frac{WS^2}{60}$	$L=\frac{WS^2}{150}$
45 mph (80 km/h) or greater:	L=(W)(S)	L=0.65(W)(S)

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

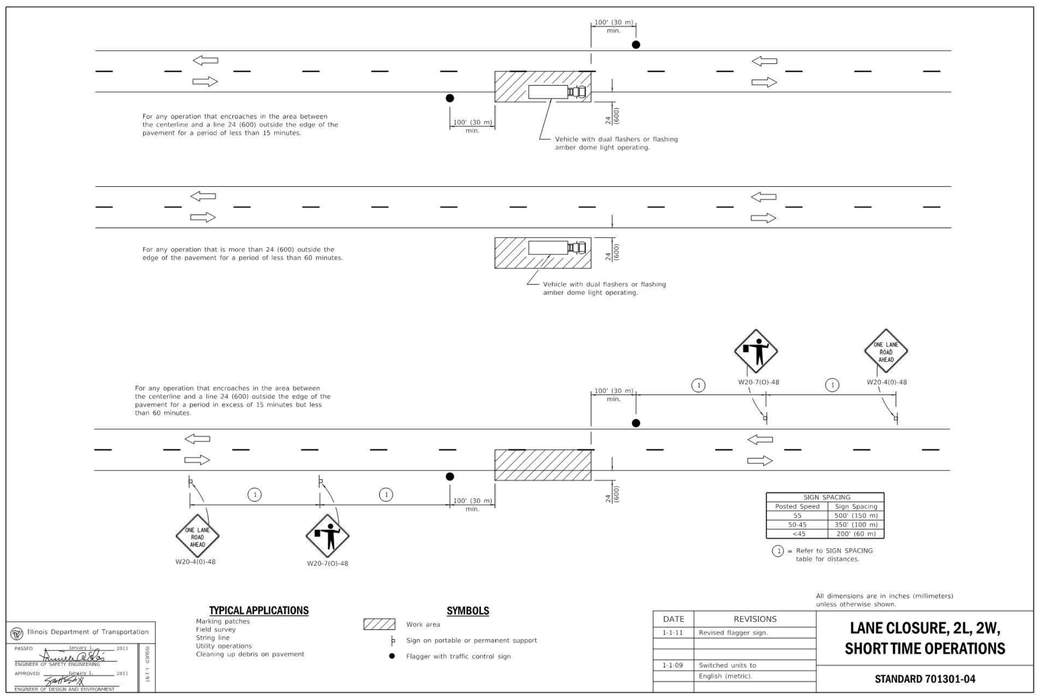
PASSED January 1, 2014 — ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2014 — ENGINEER OF DESIGN AND ENVIRONMENT

ILLINOIS DEPARTMENT OF TRANSPORTATION

DATE	REVISIONS
1-1-14	Revised workers sign
	number to agree with
	current MUTCD.
1-1-13	Omitted text 'WORKERS'
	sign.

OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE

STANDARD 701006-05



SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

(1) = Refer to SIGN SPACING table for distances.

TYPICAL APPLICATIONS

Marking patches
Field survey
String line
Utility operations
Cleaning up debris on pavement

SYMBOLS

Work area

Sign on portable or permanent support

Flagger with traffic control sign

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

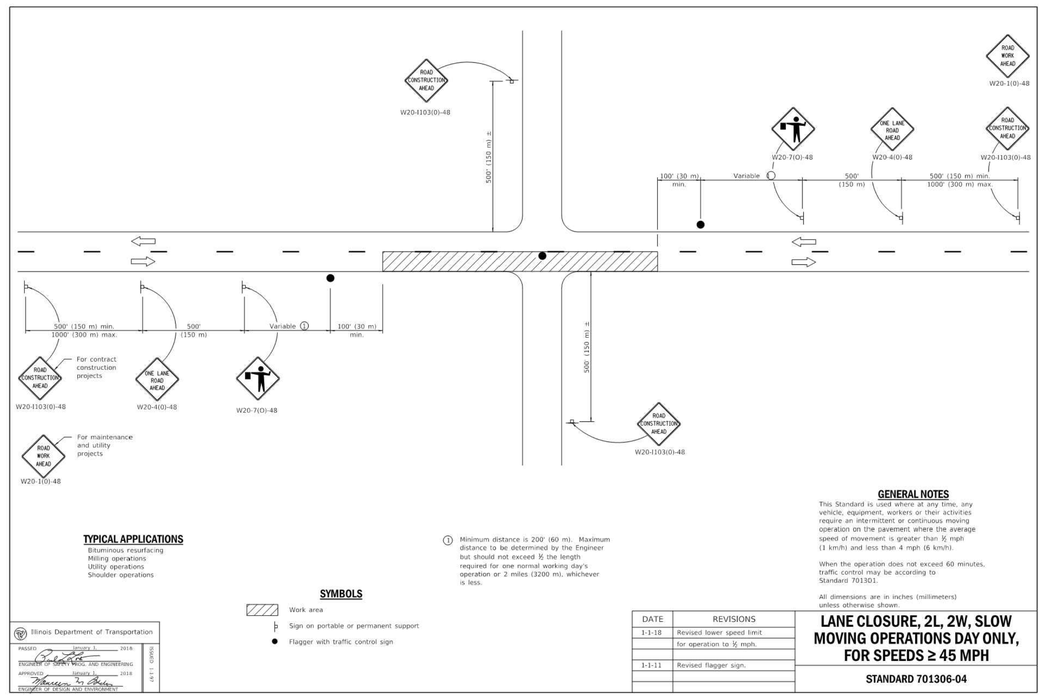
PASSED January 1, 2011 — ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2011 — ENGINEER OF DESIGN AND ENVIRONMENT

ILLINOIS DEPARTMENT OF TRANSPORTATION

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to
	English (metric).

LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS

STANDARD 701301-04



TYPICAL APPLICATIONS

Bituminous resurfacing
Milling operations
Utility operations
Shoulder operations

(1) Minimum distance is 200' (60 m). Maximum distance to be determined by the Engineer but should not exceed ½ the length required for one normal working day's operation or 2 miles (3200 m), whichever is less.

SYMBOLS

Work area

Sign on portable or permanent support

Flagger with traffic control sign

GENERAL NOTES

This Standard is used where at any time, any vehicle, equipment, workers or their activities require an intermittent or continuous moving operation on the pavement where the average speed of movement is greater than ½ mph (1 km/h) and less than 4 mph (6 km/h).

When the operation does not exceed 60 minutes, traffic control may be according to Standard 701301.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2018 — ENGINEER OF TRAFFIC AND SAFETY ENGINEERING
APPROVED January 1, 2018 — ENGINEER OF DESIGN AND ENVIRONMENT

ILLINOIS DEPARTMENT OF TRANSPORTATION

DATE	REVISIONS
1-1-18	Revised lower speed limit
	for operation to ½ mph.
1-1-11	Revised flagger sign.

LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH

STANDARD 701306-04

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APPROVED: DVM — JOB NUMBER: 170818
CAD DATE: 10/7/2020 10:22:57 PM
CAD FILE: J:\2017\170818\CAD\Dwgs\C\91 HIGHWAY STANDARDS.dwg

BAR IS ONE INCH ON OFFICIAL DRAWINGS.
0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
ILLINOIS DESIGN FIRM # 184.001322
420 N. FRONT STREET, SUITE 100
McHENRY, ILLINOIS 60050
PHONE: 815.385.1778 | TOLL FREE: 800.728.7805
FAX: 815.385.1781 | HRGreen.com

FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
HIGHWAY STANDARDS

SHEET NO.
91

Xrefs: xgl-1-dn01; xc-1-details

TYPICAL APPLICATIONS

Landscaping work

Utility work

Fencing contracts and maintenance

Cleaning culverts

GENERAL NOTES

This Standard is used where at all times all vehicles, equipment, workers or their activities are more than 15' (4.5 m) from the edge of pavement.

When the work operation requires that two or more work vehicles cross the 15' (4.5 m) clear zone in any one hour, traffic control shall be according to Standard 701006.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2009 — ENGINEER OF OPERATIONS

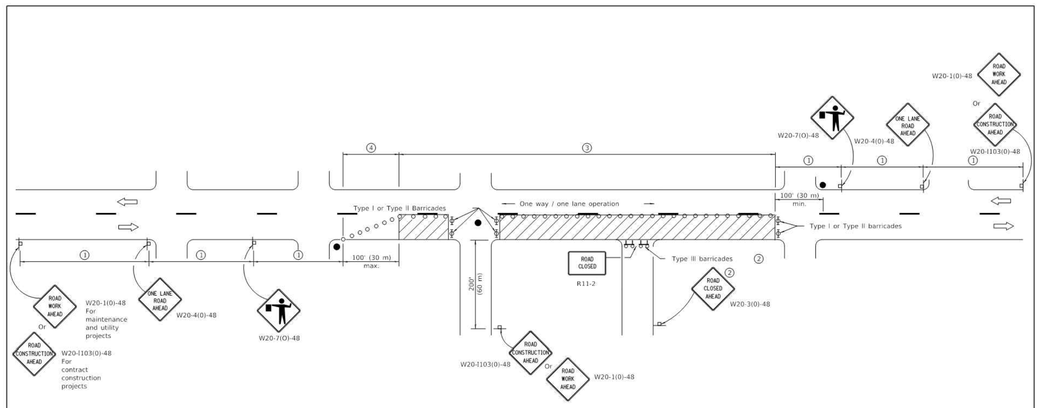
APPROVED January 1, 2009 — ENGINEER OF DESIGN AND ENVIRONMENT

STANDARD 1.1.07

DATE	REVISIONS
1-1-09	Switched units to English (metric).
1-1-05	Revised title and notes.

OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY

STANDARD 701001-02



SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

SYMBOLS

- Work area
- Cone, drum or barricade (not required for moving operations)
- Sign on portable or permanent support
- Flagger with traffic control sign
- Barricade or drum with flashing light
- Type III barricade with flashing lights

1. Refer to SIGN SPACING TABLE for distances.
2. For approved sideroad closures.
3. Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.
4. Cones, drums or barricades at 20' (6 m) centers.

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an urban area.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2011 — ENGINEER OF SAFETY ENGINEERING

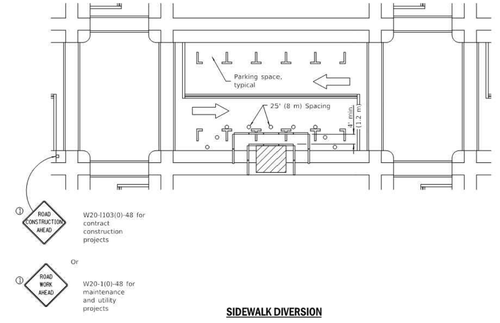
APPROVED January 1, 2011 — ENGINEER OF DESIGN AND ENVIRONMENT

STANDARD 1.1.07

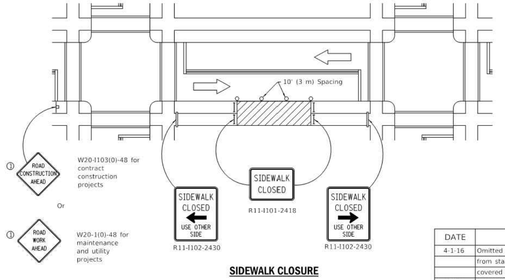
DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to English (metric). Corrected sign No.'s.

URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED

STANDARD 701501-06



SIDEWALK DIVERSION



SIDEWALK CLOSURE

1 Omit whenever duplicated by road work traffic control.

SYMBOLS

- Work area
- Sign on portable or permanent support
- Barricade or drum
- Cone, drum or barricade
- Type III barricade
- Detectable pedestrian channelizing barricade

GENERAL NOTES

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barricades and R11-2.4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" detail on Standard 701901.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED [illegible] 2016 — ENGINEER OF SAFETY ENGINEERING

APPROVED [illegible] 2016 — ENGINEER OF DESIGN AND ENVIRONMENT

STANDARD 1.1.07

DATE	REVISIONS
4-1-16	Omitted orange safety fence from standard as this is covered in the std. spec.
1-1-12	Added SIDEWALK DIVERSION. Modified appearance of plan views. Renamed Std.

SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 1 of 2)

STANDARD 701801-06

FOR BIDDING ONLY

DRAWN BY:	CTK	JOB DATE:	OCTOBER 28, 2020
APPROVED:	DVM	JOB NUMBER:	170818
CAD DATE:	10/7/2020 10:23:26 PM		
CAD FILE:	J:\2017\170818\CAD\Dwgs\C\92 HIGHWAY STANDARDS.dwg		

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SHEET NO.
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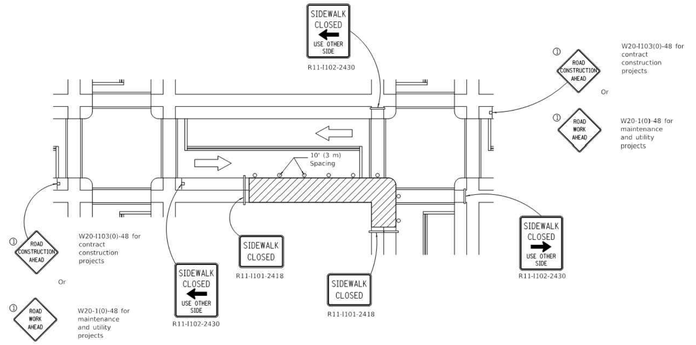
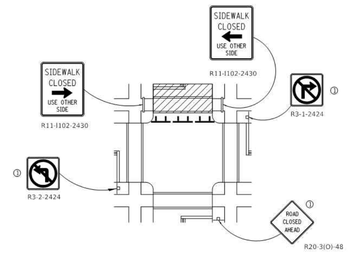
Xrefs: xgl-1-dh01; xc-1-details



CORNER CLOSURE



CROSSWALK CLOSURE

Illinois Department of Transportation

PASSED April 1, 2016 — ENGINEER OF SAFETY ENGINEERING

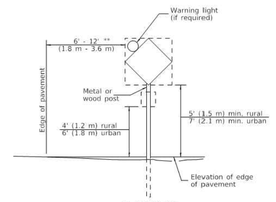
APPROVED April 1, 2016 — ENGINEER OF DESIGN AND ENVIRONMENT

STANDARD 701801-06

SIDEWALK, CORNER OR CROSSWALK CLOSURE

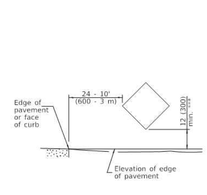
(Sheet 2 of 2)

STANDARD 701801-06



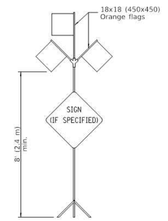
POST MOUNTED SIGNS

** When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.



SIGNS ON TEMPORARY SUPPORTS

*** When work operations exceed four days, this dimension shall be 5' (1.5 m) min. If located behind other devices, the height shall be sufficient to be seen completely above the devices.



HIGH LEVEL WARNING DEVICE

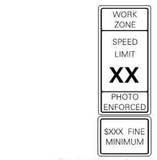
This signing is required for all projects 2 miles (3200 m) or more in length.

ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500' (150 m) in advance of project limits.

END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multi-lane highways.

WORK LIMIT SIGNING



W21-II5(0)-3618
R2-1-3648
R10-I108p-3618 ****
R2-I106p-3618

Sign assembly as shown on Standards or as allowed by District Operations.

G20-I103-6036

This sign shall be used when the above sign assembly is used.

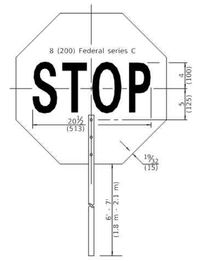
HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

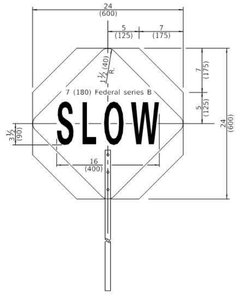
**** R10-I108p shall only be used along roadways under the juristiction of the State.

W12-I103-4848

WIDTH RESTRICTION SIGN

XX'-XX" width and X miles are variable.





FLAGGER TRAFFIC CONTROL SIGN

Illinois Department of Transportation

APPROVED January 1, 2019 — ENGINEER OF SAFETY PROG. AND ENGINEERING

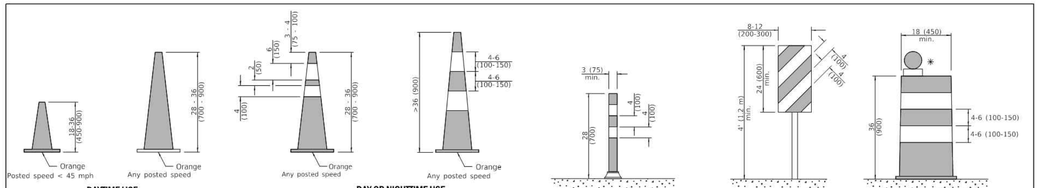
APPROVED January 1, 2019 — ENGINEER OF DESIGN AND ENVIRONMENT

STANDARD 1 1 1 9

TRAFFIC CONTROL DEVICES

(Sheet 2 of 3)

STANDARD 701901-08

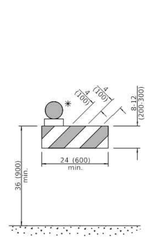


CONES

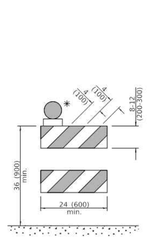
TUBULAR MARKER

VERTICAL PANEL
POST MOUNTED

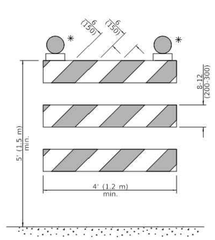
DRUM



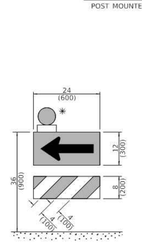
TYPE I BARRICADE



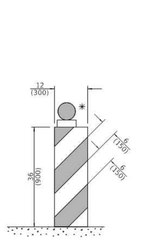
TYPE II BARRICADE



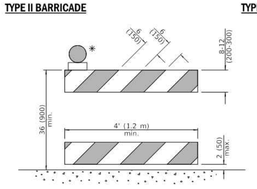
TYPE III BARRICADE



DIRECTION INDICATOR BARRICADE



VERTICAL BARRICADE



DETECTABLE PEDESTRIAN CHANNELIZING BARRICADE

✳ Warning lights (if required)

GENERAL NOTES

All heights shown shall be measured above the pavement surface.

All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
1-1-19	Revised cone usage and added cones >36" (900 m) height.
1-1-18	Revised END WORK ZONE SPEED LIMIT sign from orange to white background.

Illinois Department of Transportation

APPROVED January 1, 2019 — ENGINEER OF SAFETY PROG. AND ENGINEERING

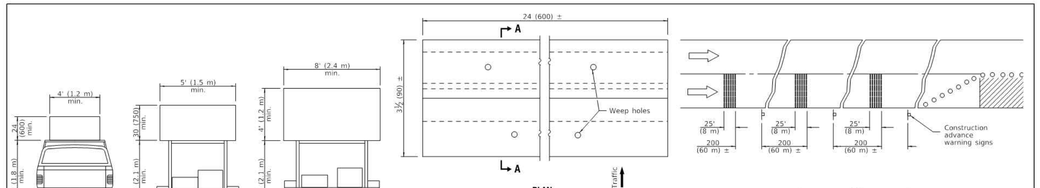
APPROVED January 1, 2019 — ENGINEER OF DESIGN AND ENVIRONMENT

STANDARD 1 1 1 9

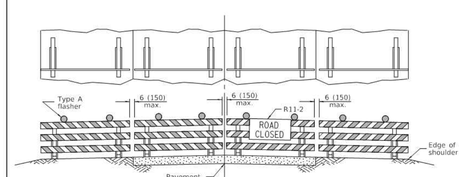
TRAFFIC CONTROL DEVICES

(Sheet 1 of 3)

STANDARD 701901-08

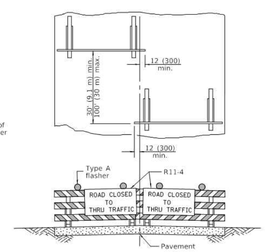


TEMPORARY RUMBLE STRIPS



Reflectorized striping may be omitted on the back side of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the sign may be mounted on an NCHRP 350 temporary sign support directly in front of the barricade.

TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD



Reflectorized striping shall appear on both sides of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the signs may be mounted on NCHRP 350 temporary sign supports directly in front of the barricade.

Illinois Department of Transportation

APPROVED January 1, 2019 — ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2019 — ENGINEER OF DESIGN AND ENVIRONMENT

STANDARD 1 1 1 9

TRAFFIC CONTROL DEVICES

(Sheet 3 of 3)

STANDARD 701901-08

FOR BIDDING ONLY

DRAWN BY: CTK — JOB DATE: OCTOBER 28, 2020

APPROVED: DVM — JOB NUMBER: 170818

CAD DATE: 10/7/2020 10:23:33 PM

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SHEETS
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SHEET NO.
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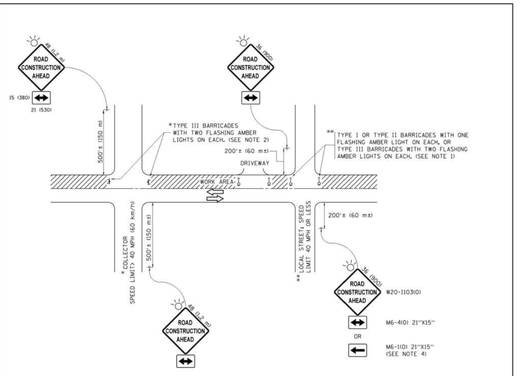


NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARDS, THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

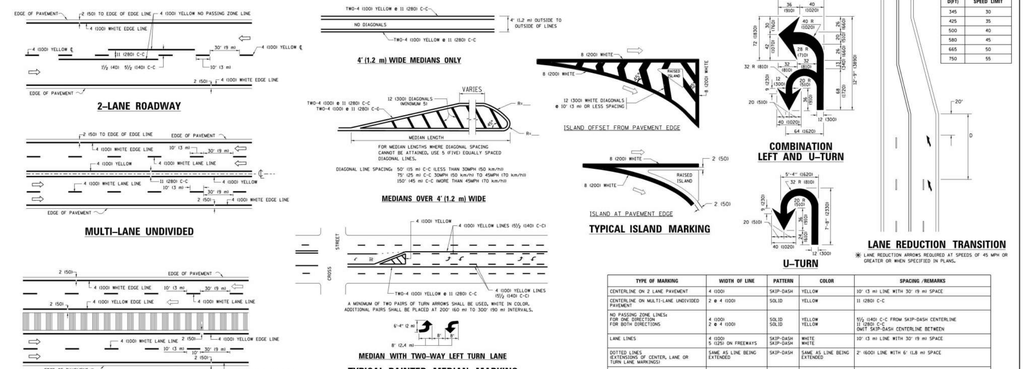
FILE NAME =	USER NAME = Fosterj	DESIGNED - L.A.K.	REVISED - A. HOUSEH 10-15-96
pw:\ILdiv03\Documents.pw\IDOT-Springfield\d0166966\TEC.dgn	USE\URN: c:\Bentley\Workspace\Projects\Default\dgn\TEC.dgn	DRAWN -	REVISED - T. RAMACHER 01-06-00
	PLOT SCALE = 150.0000 ' / in.	CHECKED -	REVISED - A. SCHLETZE 07-01-13
Default	PLOT DATE = 9/15/2016	DATE - 06-99	REVISED - A. SCHLETZE 09-15-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TC-10	CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



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M:\districts\422\34\M1633.dgn		DRAWN -	REVISED - C. JUCIUS 07-01-13
	PLOT SCALE = 150.0000 ' / in.	CHECKED - A. ABBAS	REVISED - C. JUCIUS 12-21-15
Default	PLOT DATE = 6/22/2017	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

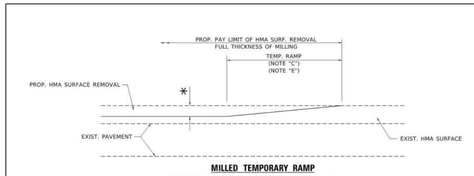
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TC-13	CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

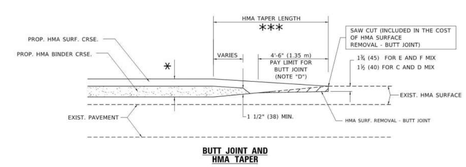
All dimensions are in inches (millimeters) unless otherwise shown.

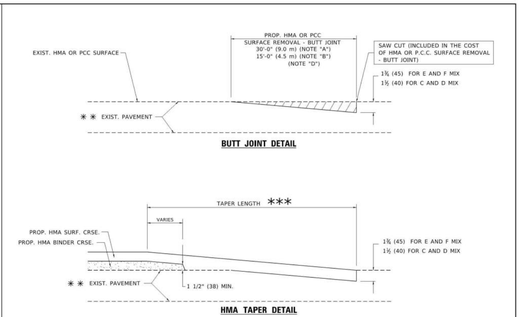
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	15 (380) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C BETWEEN SOLID LINES
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	4 (100)	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE, FULL SIZE ARROWS, SYMBOLS 8' (2.4m)	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH, 11(0) (280) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (ONE) & EQUESTRIAN B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT, NOT TO CONFLICT WITH CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 4 (100) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW- TWO WAY TRAFFIC WHITE- ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 11' (4.3 m) C-C LESS THAN 30MPH (50 km/h) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C OVER 45MPH (70 km/h)
RAILROAD CROSSING	24 (600) TRANSVERSE BARS, 18" (450) CLR. LETTERS IN LANE LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 "RAIL"- 78.5 SQ. FT. (5.33 m²) EACH "X"-54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS REQUIRED FOR SHOULDERS ≥ 8'	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C LESS THAN 30MPH (50 km/h) 75' (25 m) C-C 30 MPH (50) km/h TO 45MPH (70 km/h) 150' (45 m) C-C OVER 45MPH (70 km/h)
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.







** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A. MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B. MINOR SIDE ROADS.

C. THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D. THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E. TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F. INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT.
* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

G. SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

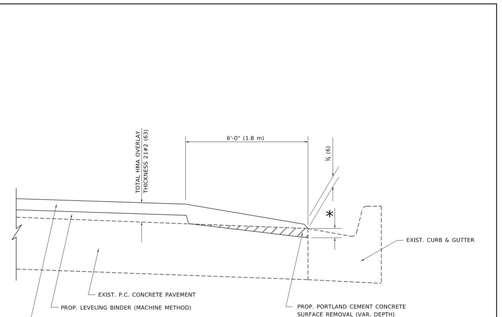
FILE NAME =	USER NAME = fosterj	DESIGNED - R. SHAH	REVISED - A. ABBAS 05-05-9
M:\districts\422\34\M1633.dgn		DRAWN - JD	REVISED - E. GOMEZ 12-21-00
	PLOT SCALE = 50.0000 ' / in.	CHECKED - A. ABBAS	REVISED - R. BORO 01-01-07
Default	PLOT DATE = 5/17/2019	DATE - 09-10-94	REVISED - JP CHANG 07-08-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BD400-05 B032	CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



HMA SURFACE		LEVELING BINDER	
MIX	THICKNESS	THICKNESS	* MILLING AT GUTTER FLAG
C OR D	1½ (38)	1 (25)	1¾ (33)
E	1¾ (44)	¾ (19)	1½ (38)

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = fosterj	DESIGNED - R. SHAH	REVISED - A. ABBAS 05-05-9
M:\districts\422\34\M1633.dgn		DRAWN - JD	REVISED - E. GOMEZ 12-21-00
	PLOT SCALE = 50.0000 ' / in.	CHECKED - A. ABBAS	REVISED - R. BORO 01-01-07
Default	PLOT DATE = 5/17/2019	DATE - 09-10-94	REVISED - JP CHANG 07-08-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HMA TAPER AT EDGE OF P.C.C. PAVEMENT

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BD400-06 (BD33)	CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

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Xrefs: xgl-1-dh01; xc-1-details

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APPROVED: DVM	JOB NUMBER: 170818	0 1"
CAD DATE: 10/7/2020 10:23:38 PM		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD FILE: J:\2017\170818\CAD\Dwgs\C\94 HIGHWAY STANDARDS.dwg		

NO.	DATE	BY	REVISION DESCRIPTION

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ILLINOIS DESIGN FIRM # 184.001322

420 N. FRONT STREET, SUITE 100
McHENRY, ILLINOIS 60050

PHONE: 815.385.1778 | TOLL FREE: 800.728.7805
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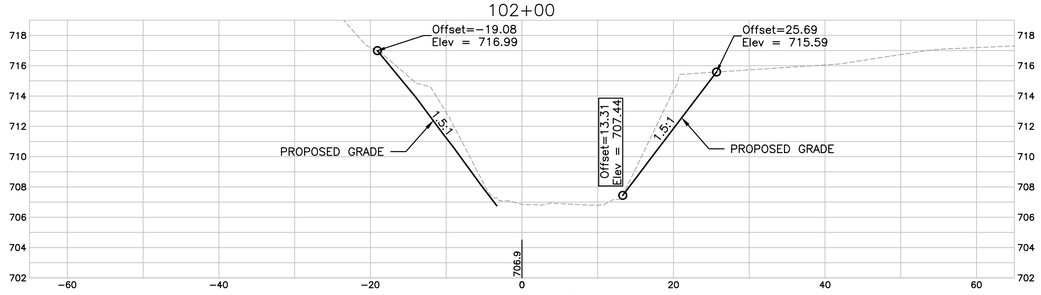
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
HIGHWAY STANDARDS

SHEET NO.
94

102+00



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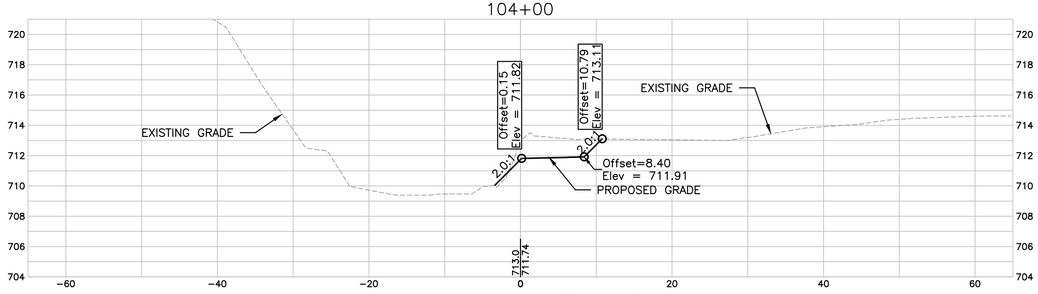
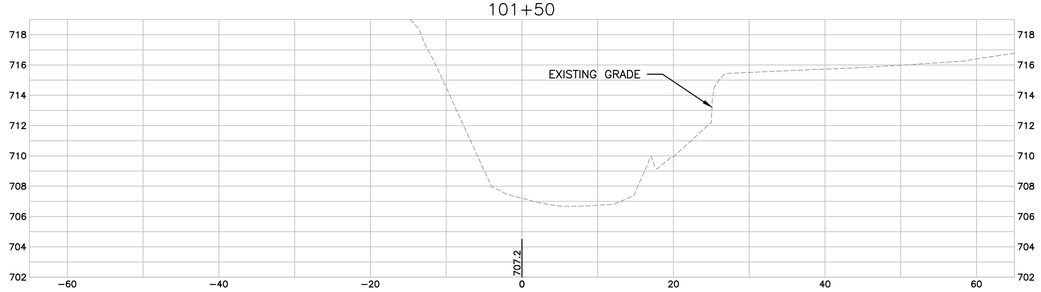
CUT AREA = 17.99 SF
FILL AREA = 0.00 SF

104+00



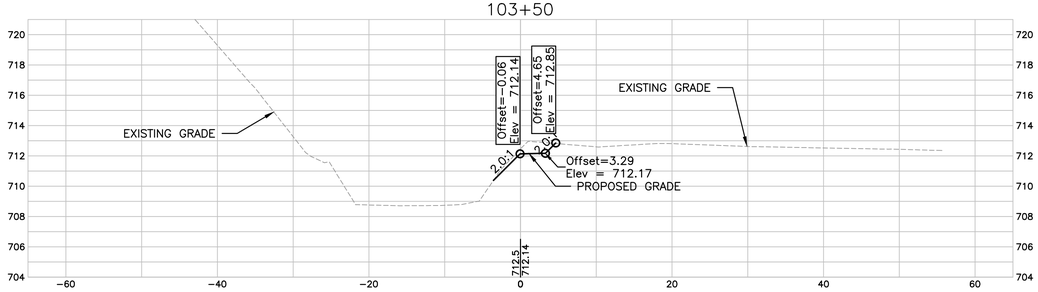
CROSS SECTION 1" = 10'
CUT AREA = 13.57 SF
FILL AREA = 4.28 SF

101+50



CROSS SECTION 1" = 10'
CUT AREA = 0.00 SF
FILL AREA = 0.00 SF

103+50



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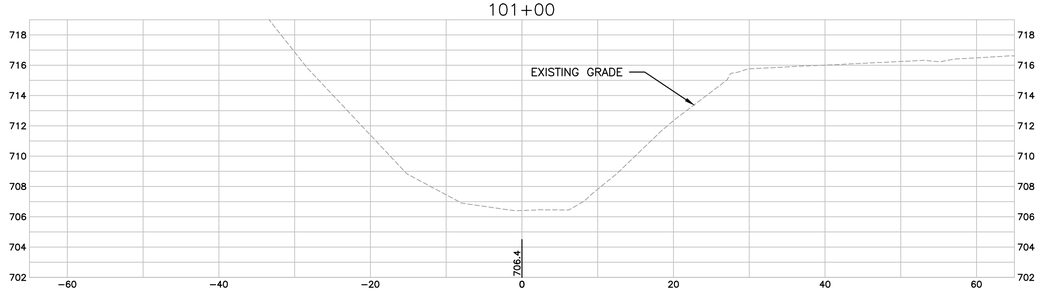
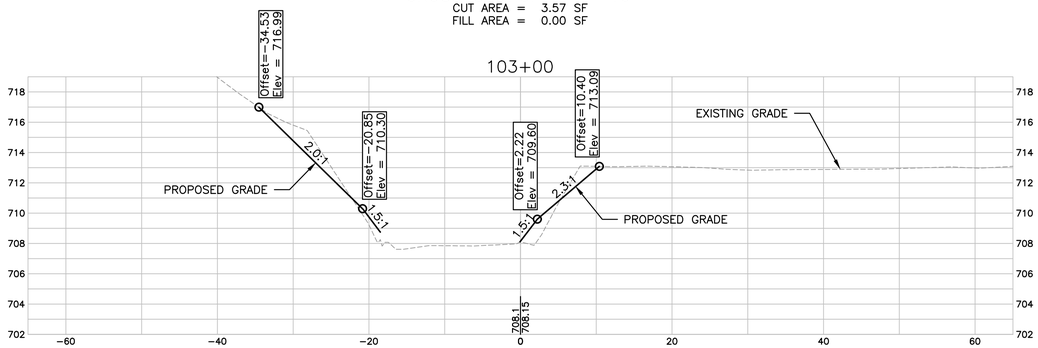
CUT AREA = 3.57 SF
FILL AREA = 0.00 SF

101+00



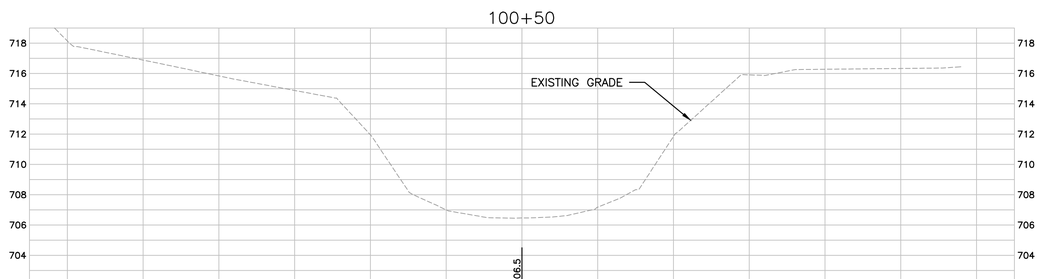
CROSS SECTION 1" = 10'
CUT AREA = 0.00 SF
FILL AREA = 0.00 SF

103+00



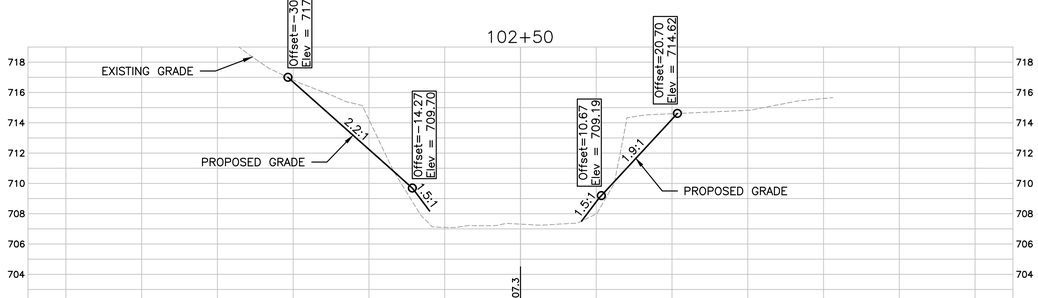
CROSS SECTION 1" = 10'
CUT AREA = 2.77 SF
FILL AREA = 4.28 SF

100+50



CROSS SECTION 1" = 10'
CUT AREA = 0.00 SF
FILL AREA = 0.00 SF

102+50



CROSS SECTION 1" = 10'
CUT AREA = 13.95 SF
FILL AREA = 1.97 SF

FOR BIDDING ONLY

Xrefs: xgt-1-dh01; xc-1-xsec-Creek

DRAWN BY: CTK JOB DATE: OCTOBER 28, 2020
APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/23/2020 8:10:05 AM
CAD FILE: J:\2017\170818\CAD\Dwgs\C\95 7TH AVE CREEK CROSS SECTIONS STA 100+50 TO 104+00.dwg

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
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McHENRY, ILLINOIS 60050
PHONE: 815.385.1778 | TOLL FREE: 800.728.7805
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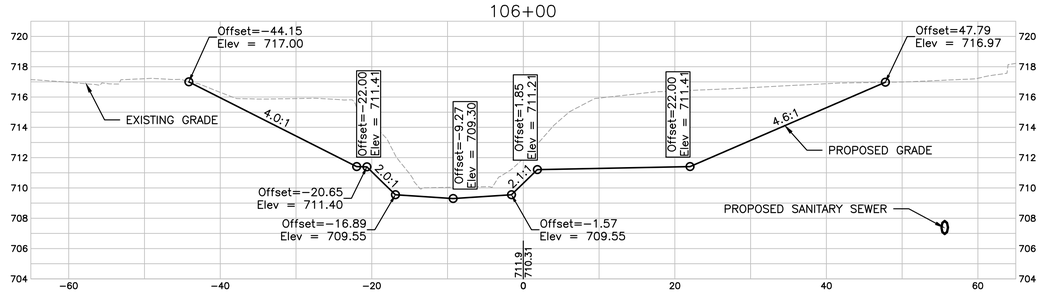
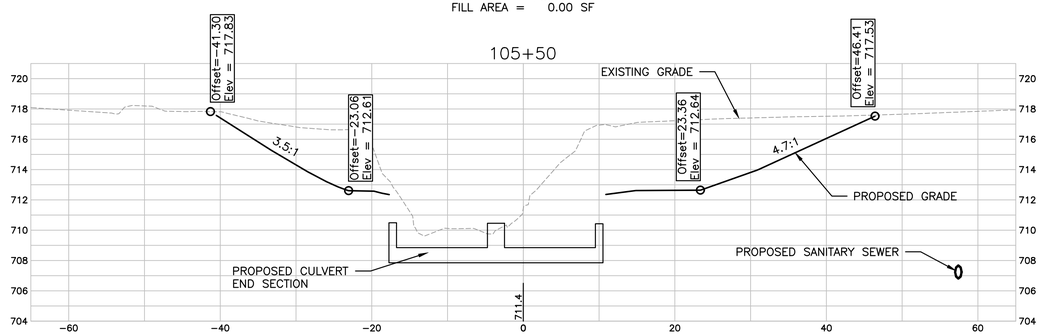
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
7TH AVE CREEK CROSS SECTIONS STA 100+50 TO 104+00

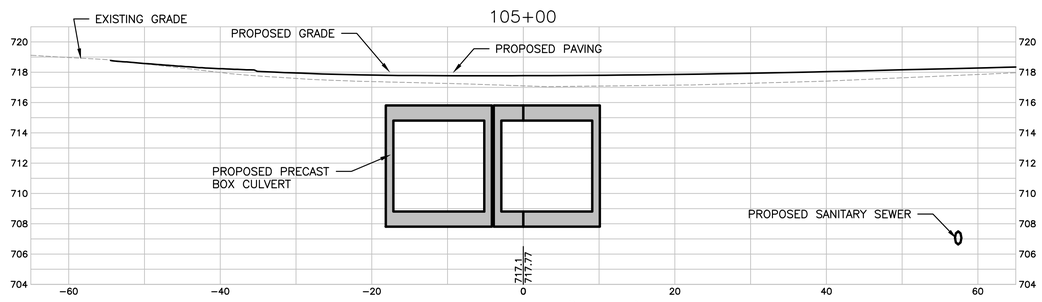
SHEET NO.
95



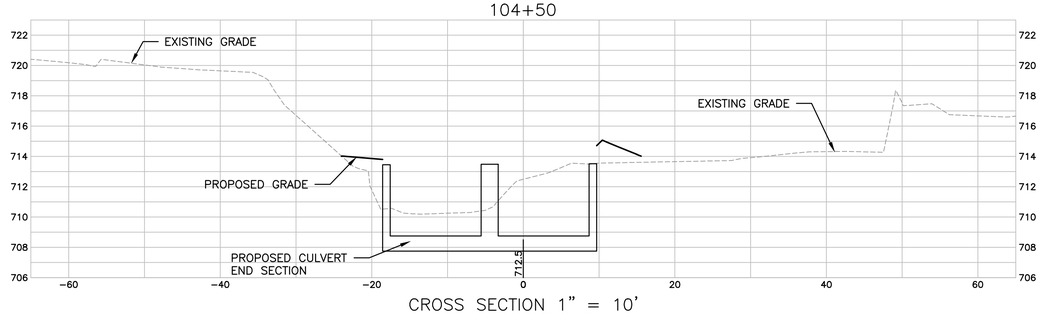
CROSS SECTION 1" = 10'
CUT AREA = 230.01 SF
FILL AREA = 0.00 SF



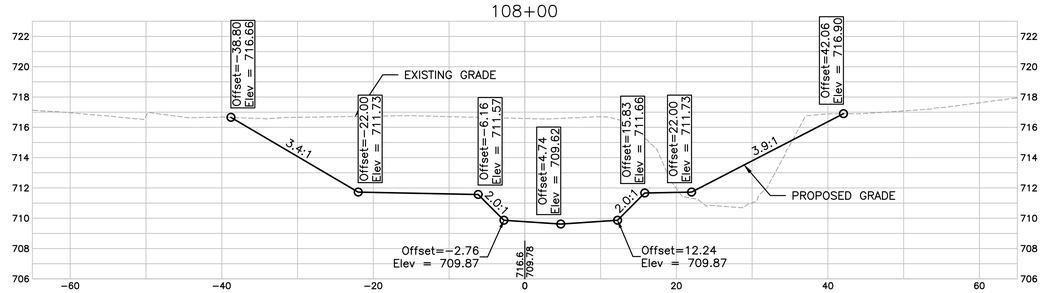
CROSS SECTION 1" = 10'
CUT AREA = 286.37 SF
FILL AREA = 0.00 SF



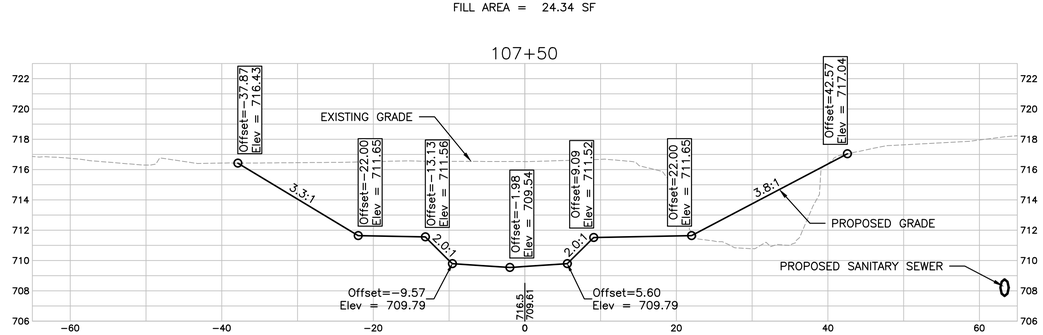
CROSS SECTION 1" = 10'
CUT AREA = 0.00 SF
FILL AREA = 0.00 SF



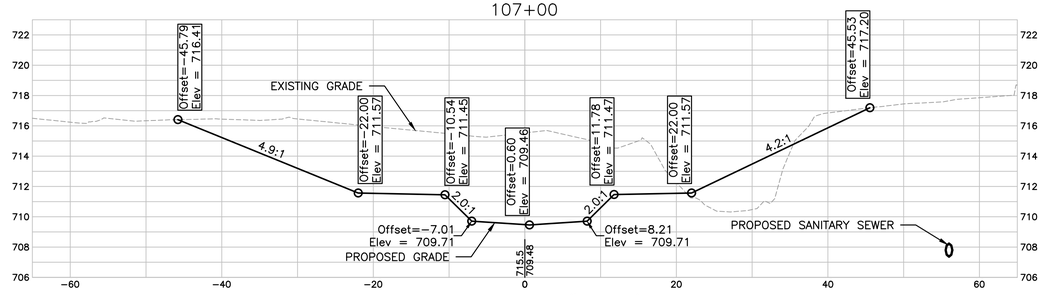
CROSS SECTION 1" = 10'
CUT AREA = 105.40 SF
FILL AREA = 12.62 SF



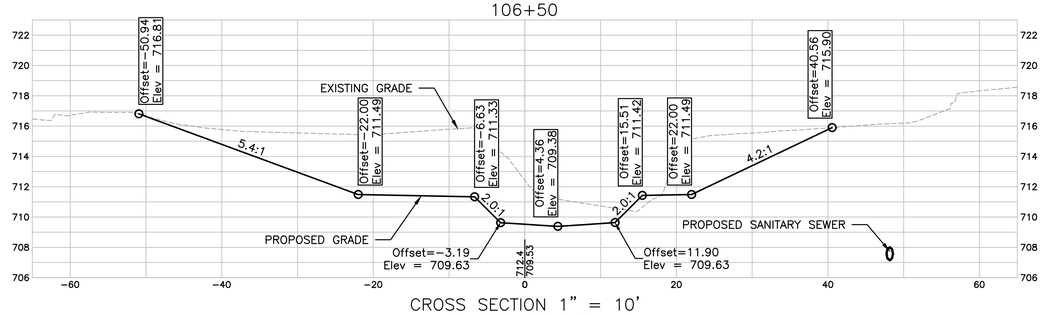
CROSS SECTION 1" = 10'
CUT AREA = 276.99 SF
FILL AREA = 24.34 SF



CROSS SECTION 1" = 10'
CUT AREA = 283.50 SF
FILL AREA = 41.75 SF



CROSS SECTION 1" = 10'
CUT AREA = 255.32 SF
FILL AREA = 27.95 SF



CROSS SECTION 1" = 10'
CUT AREA = 204.84 SF
FILL AREA = 1.84 SF

FOR BIDDING ONLY

Xrefs: xg1-1-dt01; xc-1-xsec-Creek

DRAWN BY:	CTK	JOB DATE:	OCTOBER 28, 2020
APPROVED:	DVM	JOB NUMBER:	170818
CAD DATE:	10/23/2020 8:10:14 AM		
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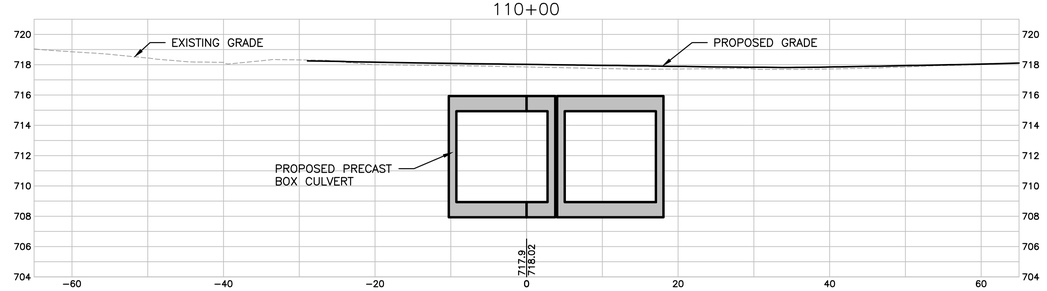
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
7TH AVE CREEK CROSS SECTIONS STA 104+50 TO 108+00

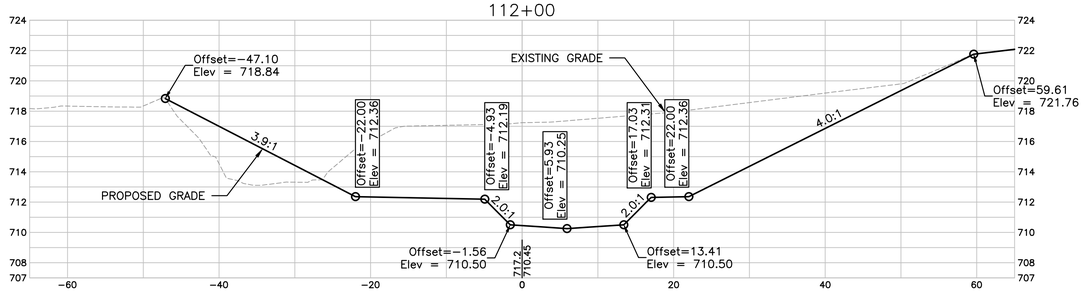
SHEET NO.
96

110+00



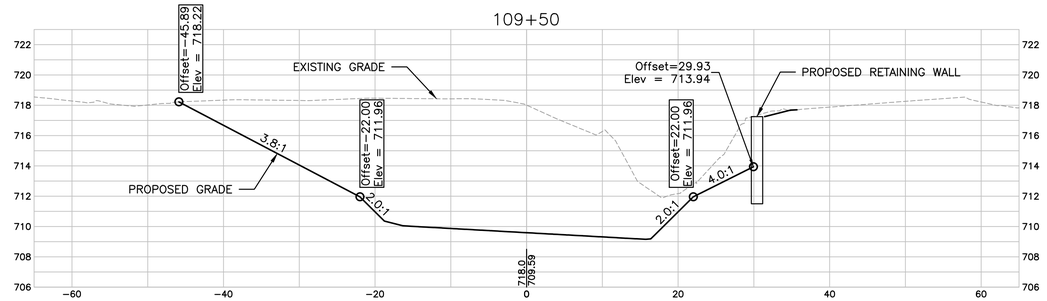
CROSS SECTION 1" = 10'
CUT AREA = 0.00 SF
FILL AREA = 0.00 SF

112+00



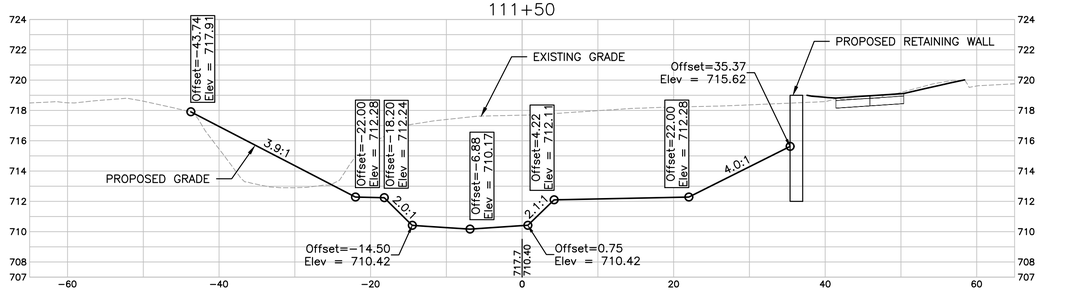
CROSS SECTION 1" = 10'
CUT AREA = 348.41 SF
FILL AREA = 36.84 SF

109+50



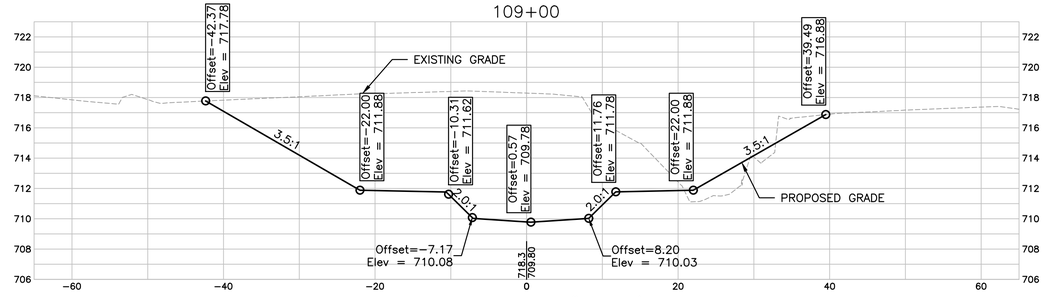
CROSS SECTION 1" = 10'
CUT AREA = 394.57 SF
FILL AREA = 0.00 SF

111+50



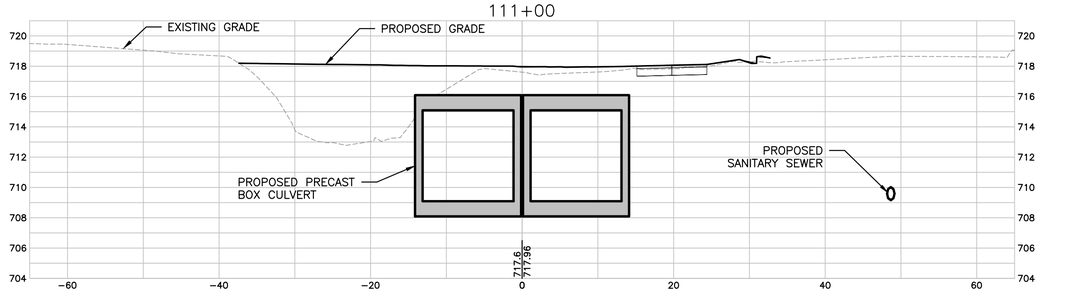
CROSS SECTION 1" = 10'
CUT AREA = 333.72 SF
FILL AREA = 30.02 SF

109+00



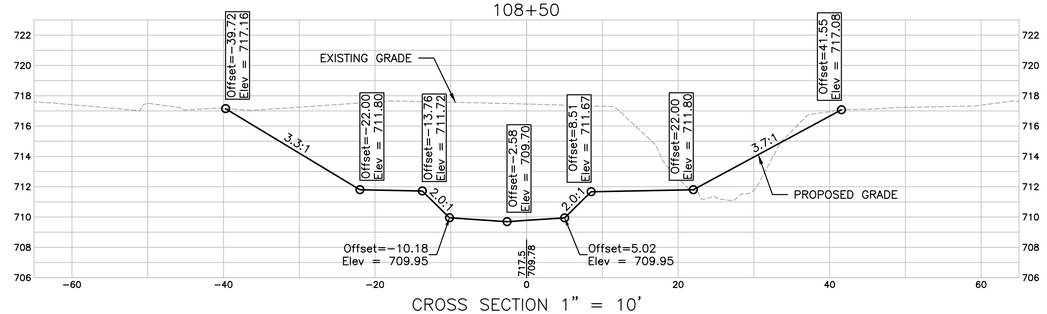
CROSS SECTION 1" = 10'
CUT AREA = 338.41 SF
FILL AREA = 11.16 SF

111+00



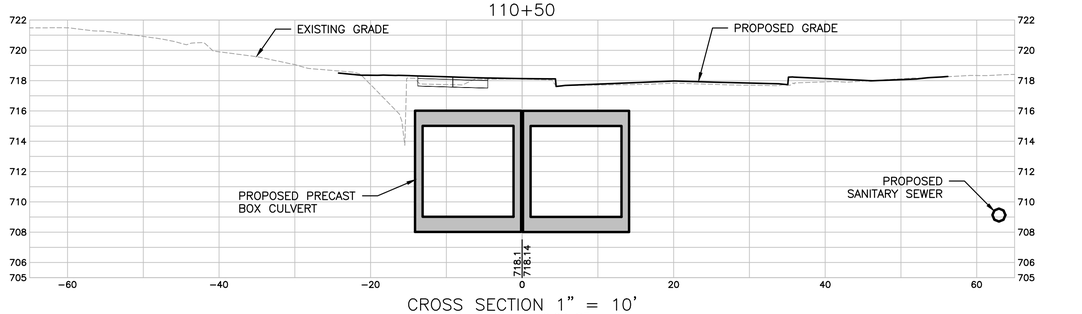
CROSS SECTION 1" = 10'
CUT AREA = 0.00 SF
FILL AREA = 113.86 SF

108+50



CROSS SECTION 1" = 10'
CUT AREA = 310.84 SF
FILL AREA = 16.38 SF

110+50



CROSS SECTION 1" = 10'
CUT AREA = 0.00 SF
FILL AREA = 19.68 SF

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APPROVED:	DVM	JOB NUMBER:	170818
CAD DATE:	10/23/2020 8:10:22 AM		
CAD FILE:	J:\2017\170818\CAD\Dwgs\C\97 7TH AVE CREEK CROSS SECTIONS 108+50 TO 112+00.dwg		

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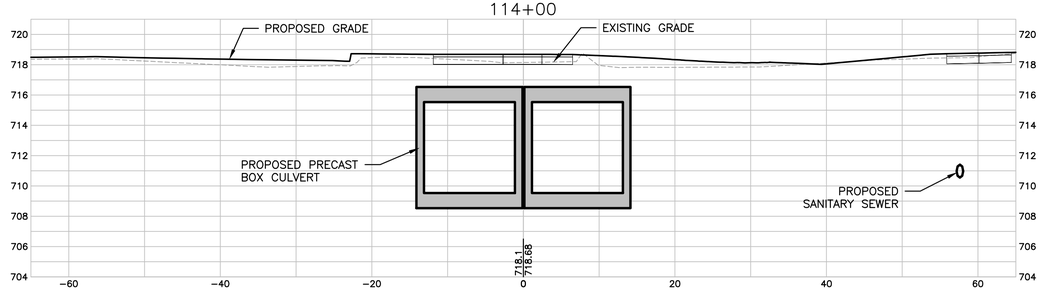
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
7TH AVE CREEK CROSS SECTIONS 108+50 TO 112+00

SHEET NO.
97

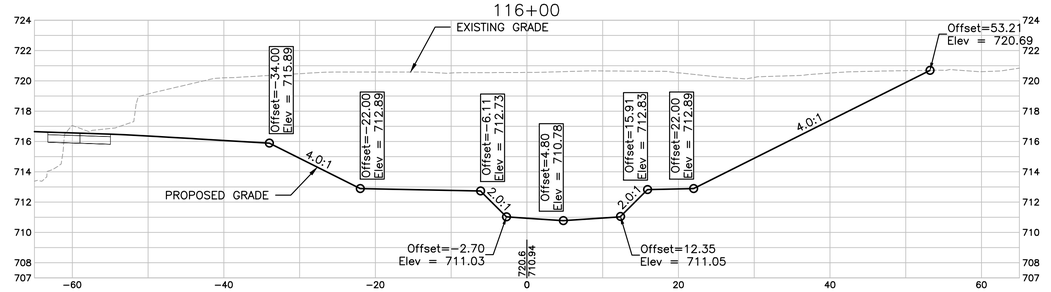
Xrefs: xg1-1-dh01; xc-1-xsec-Creek

114+00



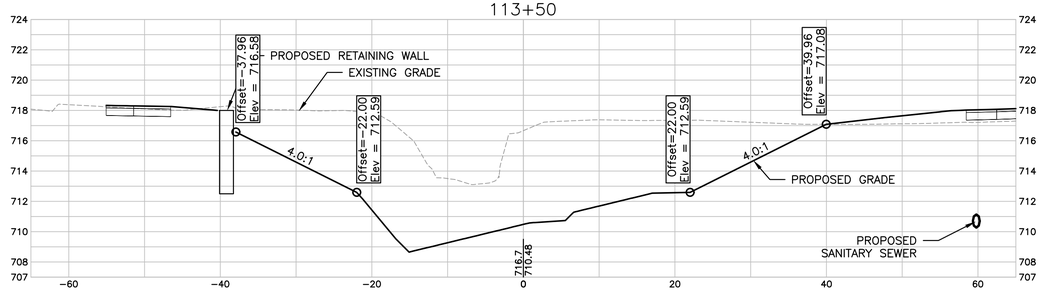
CROSS SECTION 1" = 10'
CUT AREA = 0.00 SF
FILL AREA = 39.13 SF

116+00



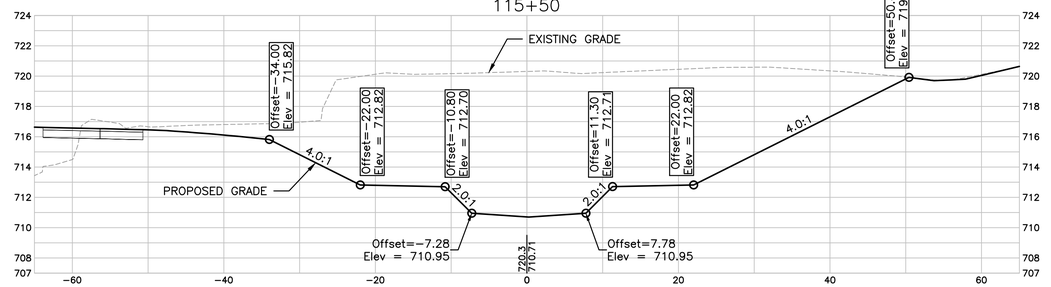
CROSS SECTION 1" = 10'
CUT AREA = 632.75 SF
FILL AREA = 40.64 SF

113+50



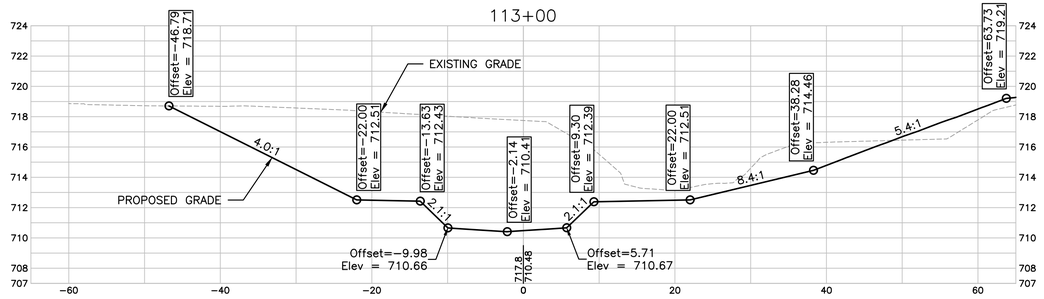
CROSS SECTION 1" = 10'
CUT AREA = 339.30 SF
FILL AREA = 17.36 SF

115+50



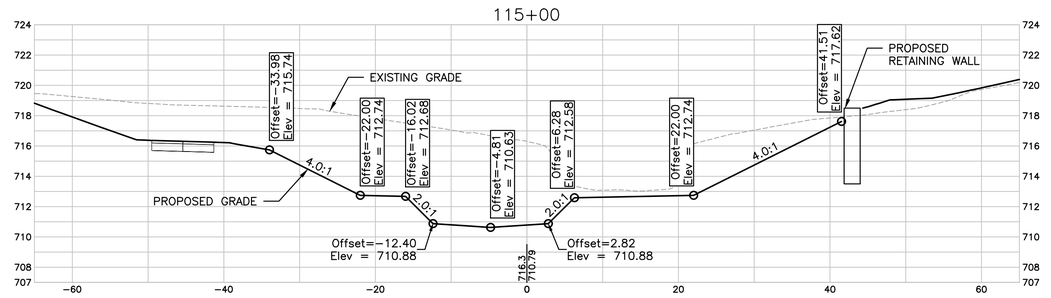
CROSS SECTION 1" = 10'
CUT AREA = 540.12 SF
FILL AREA = 98.59 SF

113+00



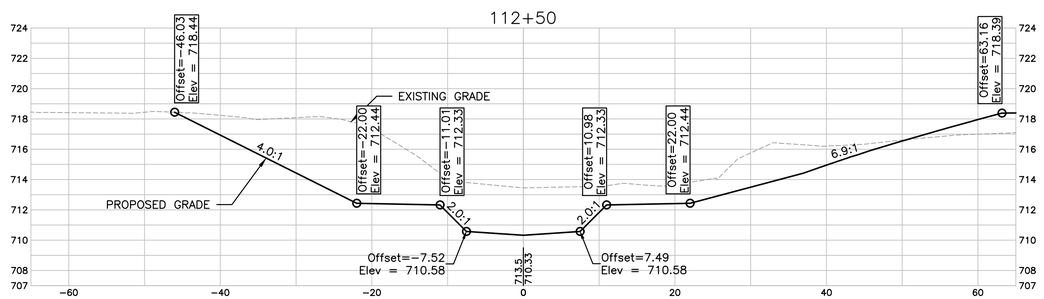
CROSS SECTION 1" = 10'
CUT AREA = 327.02 SF
FILL AREA = 15.53 SF

115+00



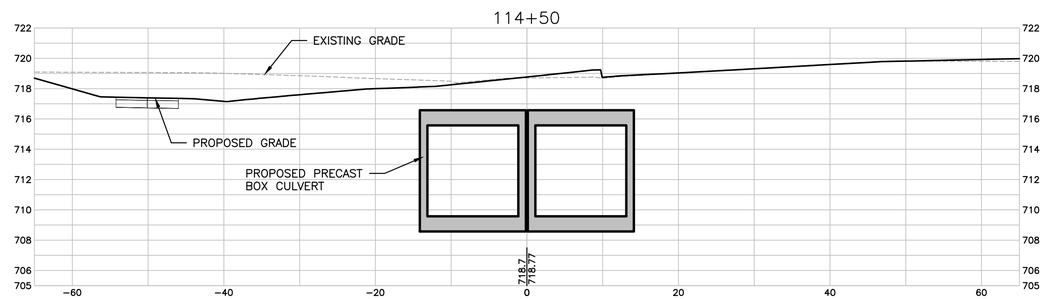
CROSS SECTION 1" = 10'
CUT AREA = 316.81 SF
FILL AREA = 9.35 SF

112+50



CROSS SECTION 1" = 10'
CUT AREA = 223.94 SF
FILL AREA = 54.25 SF

114+50



CROSS SECTION 1" = 10'
CUT AREA = 68.19 SF
FILL AREA = 9.60 SF

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DRAWN BY: CTK	JOB DATE: OCTOBER 28, 2020	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"	
APPROVED: DVM	JOB NUMBER: 170818	IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD DATE: 10/23/2020 8:10:31 AM			
CAD FILE: J:\2017\170818\CAD\Dwgs\C\98 7TH AVE CREEK CROSS SECTIONS STA 112+50 TO 116+00.dwg			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen

ILLINOIS DESIGN FIRM # 184.001322
420 N. FRONT STREET, SUITE 100
McHENRY, ILLINOIS 60050
PHONE: 815.385.1778 | TOLL FREE: 800.728.7805
FAX: 815.385.1781 | HRGreen.com

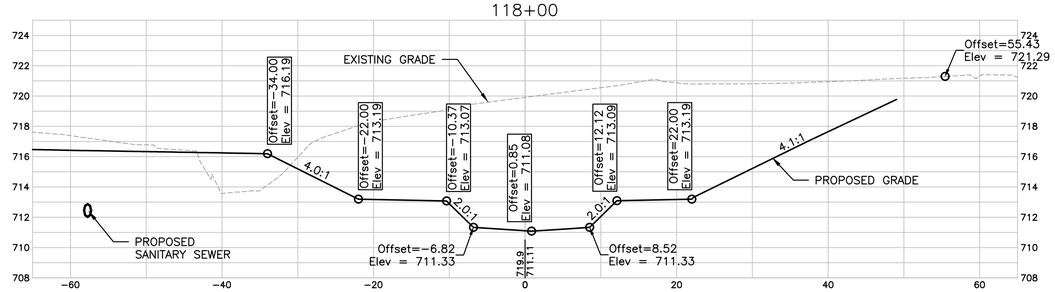
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
7TH AVE CREEK CROSS SECTIONS STA 112+50 TO 116+00

SHEET NO.
98

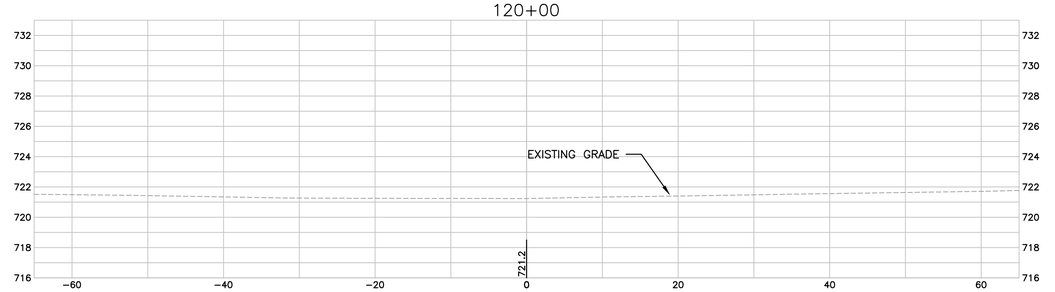
Xrefs: xg1-dh01; xc-1-xsec-Creek

118+00



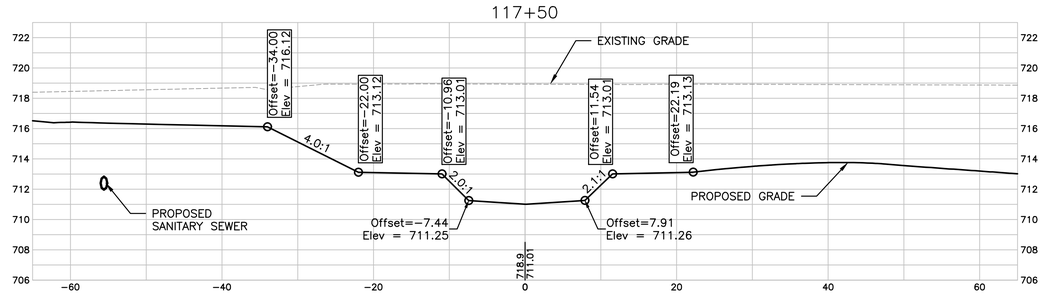
CROSS SECTION 1" = 10'
CUT AREA = 545.98 SF
FILL AREA = 27.01 SF

120+00



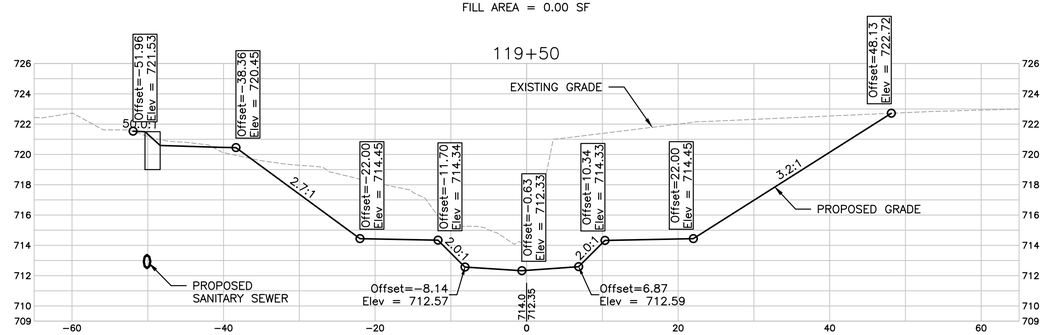
CROSS SECTION 1" = 10'
CUT AREA = 0.00 SF
FILL AREA = 0.00 SF

117+50



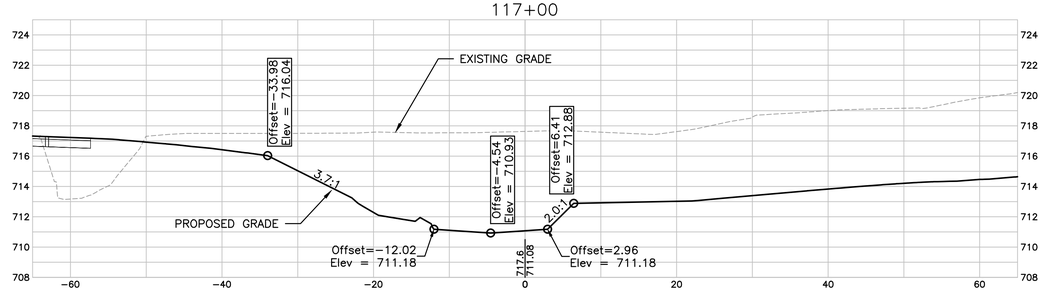
CROSS SECTION 1" = 10'
CUT AREA = 1,097.68 SF
FILL AREA = 0.90 SF

119+50



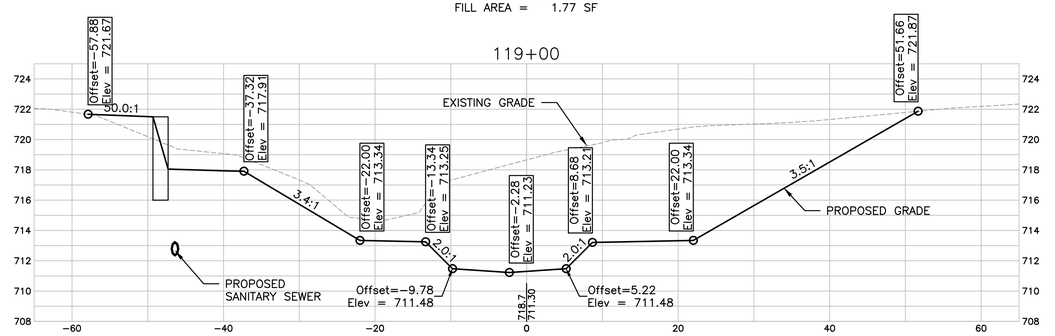
CROSS SECTION 1" = 10'
CUT AREA = 348.26 SF
FILL AREA = 1.77 SF

117+00



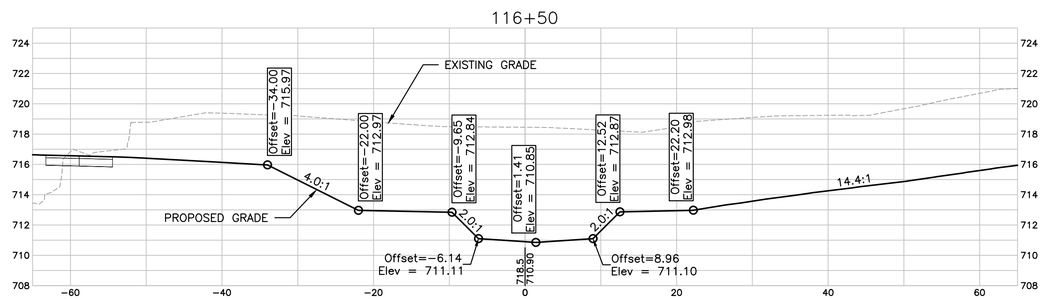
CROSS SECTION 1" = 10'
CUT AREA = 654.26 SF
FILL AREA = 85.01 SF

119+00



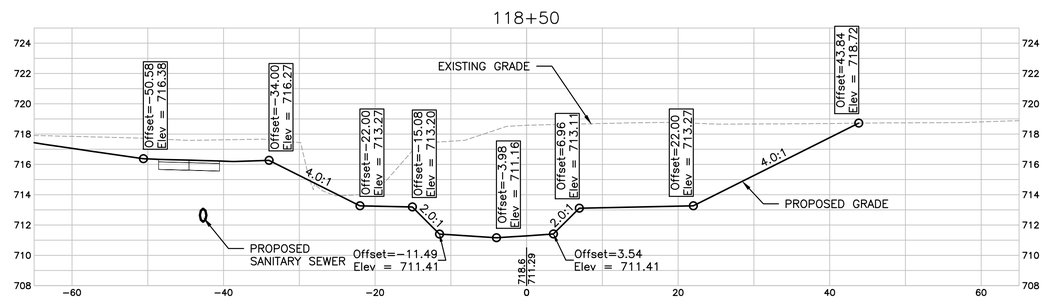
CROSS SECTION 1" = 10'
CUT AREA = 396.17 SF
FILL AREA = 6.38 SF

116+50



CROSS SECTION 1" = 10'
CUT AREA = 815.44 SF
FILL AREA = 41.16 SF

118+50



CROSS SECTION 1" = 10'
CUT AREA = 345.92 SF
FILL AREA = 1.77 SF

FOR BIDDING ONLY

Xrefs: xg-1-dh01; xc-1-xsec-Creek

DRAWN BY: CTK JOB DATE: OCTOBER 28, 2020
APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/23/2020 8:10:41 AM
CAD FILE: J:\2017\170818\CAD\Dwgs\C\99 7TH AVE CREEK CROSS SECTIONS 116+50 TO 120+00.dwg

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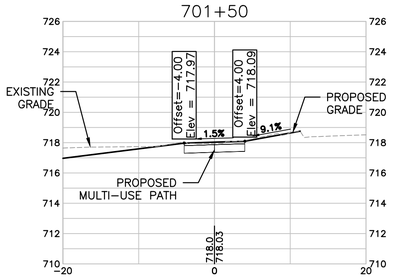
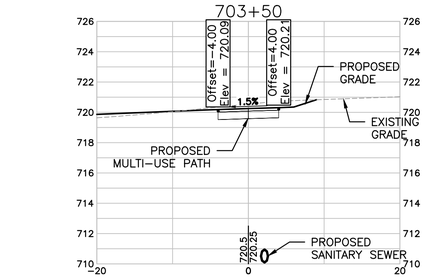
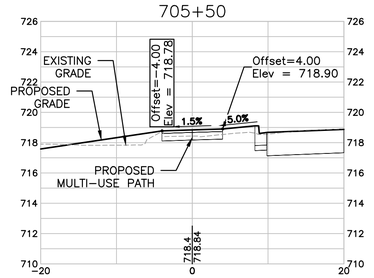
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

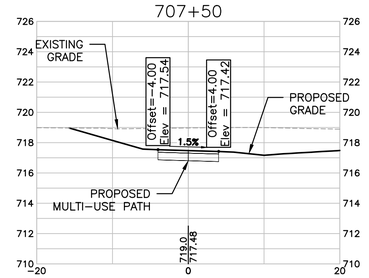
SHEETS
7TH AVE CREEK CROSS SECTIONS 116+50 TO 120+00

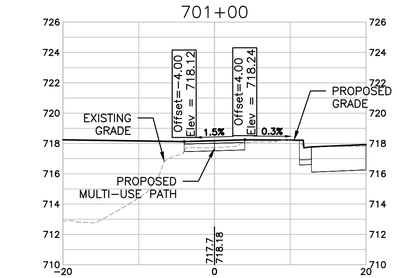
SHEET NO.
99

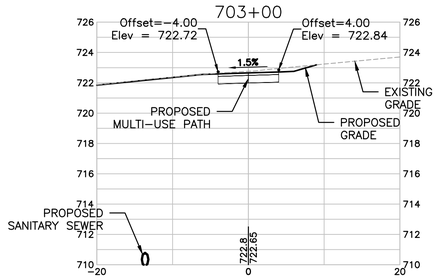


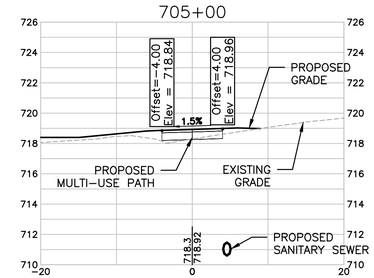


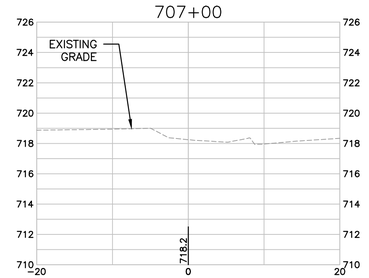


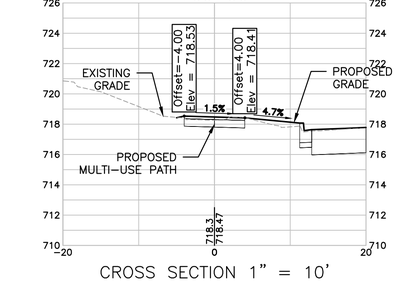


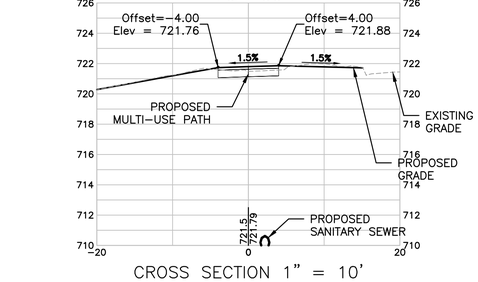


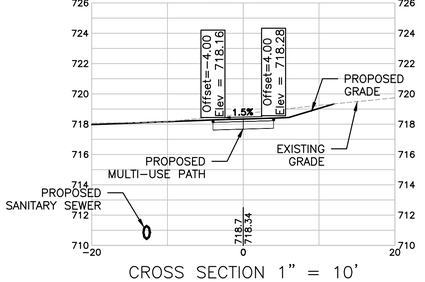


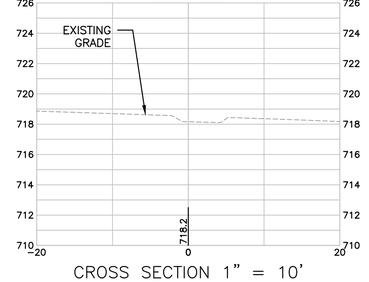


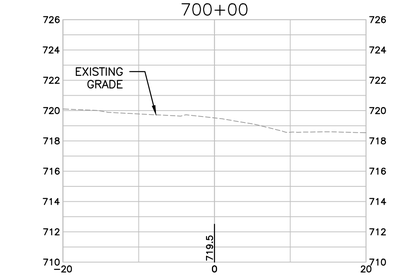


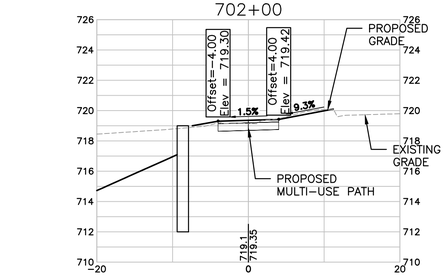


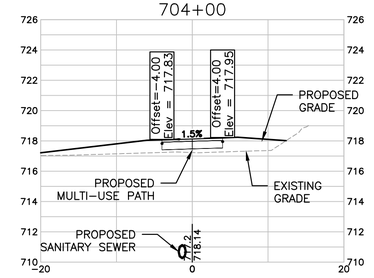


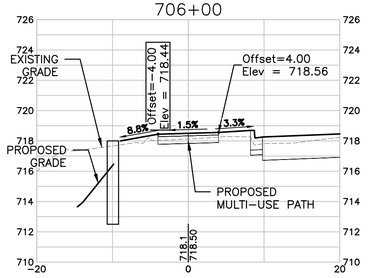












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DRAWN BY:	CTK	JOB DATE:	OCTOBER 28, 2020
APPROVED:	DVM	JOB NUMBER:	170818
CAD DATE:	10/23/2020 8:10:51 AM		
CAD FILE:	J:\2017\170818\CAD\Dwgs\C\100 MULTI-USE PATH CROSS SECTIONS - STA 700+50 TO 707+50.dwg		

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McHENRY, ILLINOIS 60050
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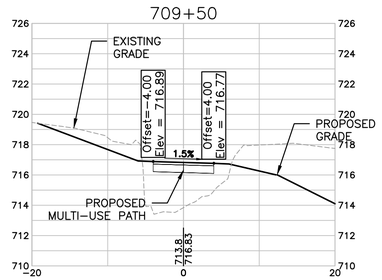
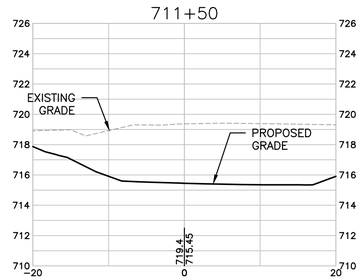
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS - PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

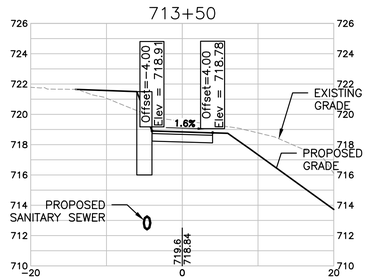
SHEETS
MULTI-USE PATH CROSS SECTIONS - STA 700+50 TO 707+50

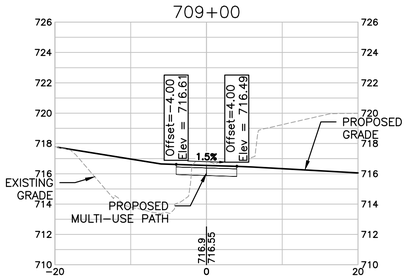
SHEET NO.
100

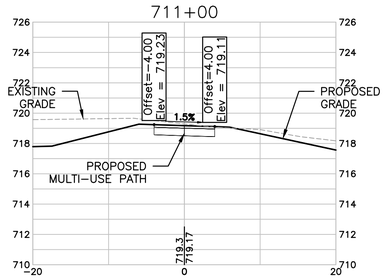
Xrefs: xgl-1-dh01; xc-1-xsec-Multi-Path

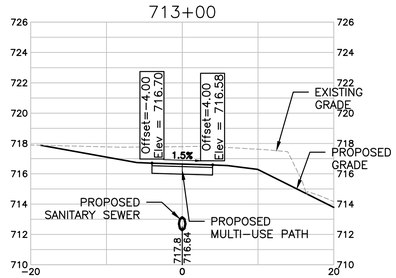


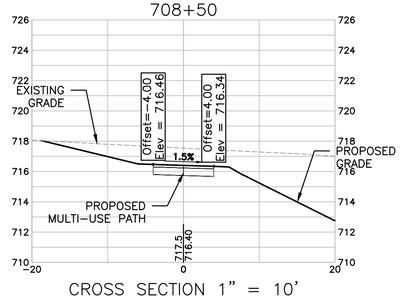


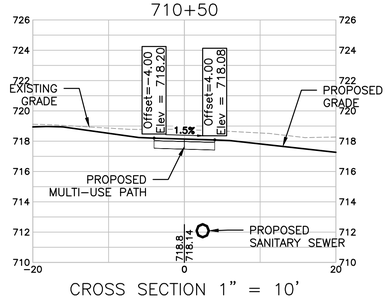


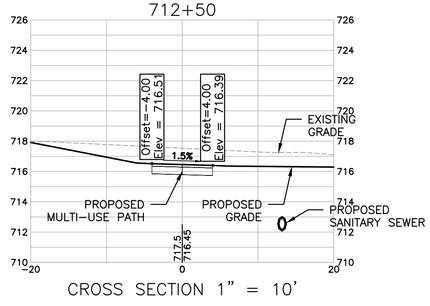


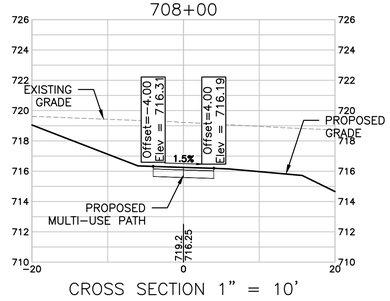


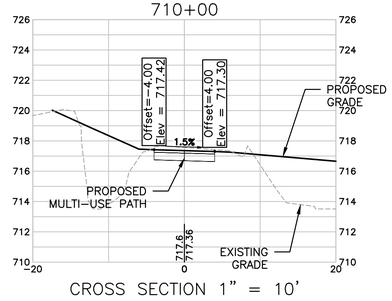


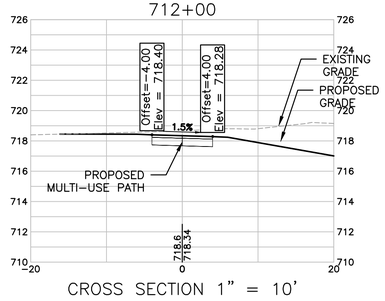


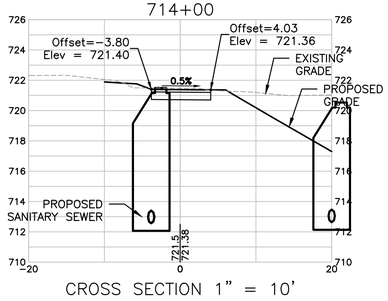












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DRAWN BY: CTK JOB DATE: OCTOBER 28, 2020
APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/23/2020 8:10:59 AM
CAD FILE: J:\2017\170818\CAD\Dwgs\C\101 MULTI−USE PATH CROSS SECTIONS − STA 708+00 TO 713+50.dwg

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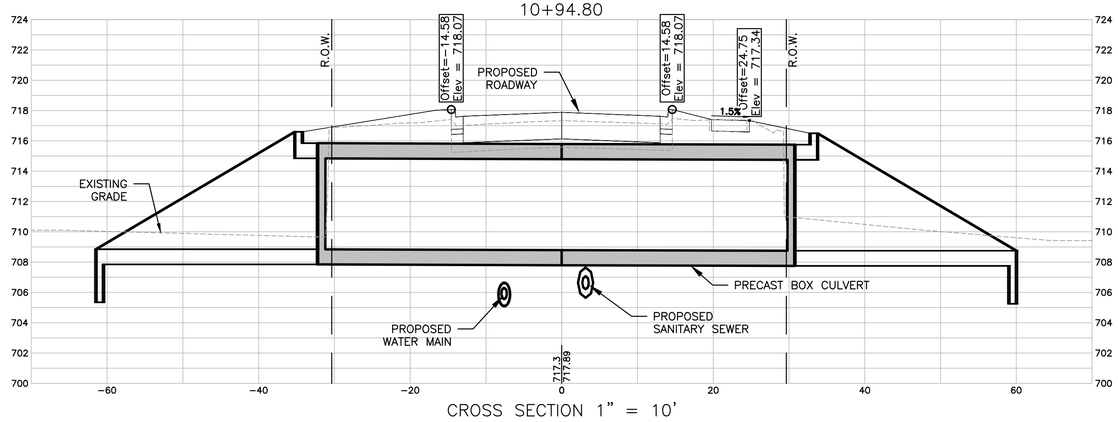
FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS − PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
MULTI−USE PATH CROSS SECTIONS − STA 708+00 TO 713+50

SHEET NO.
101

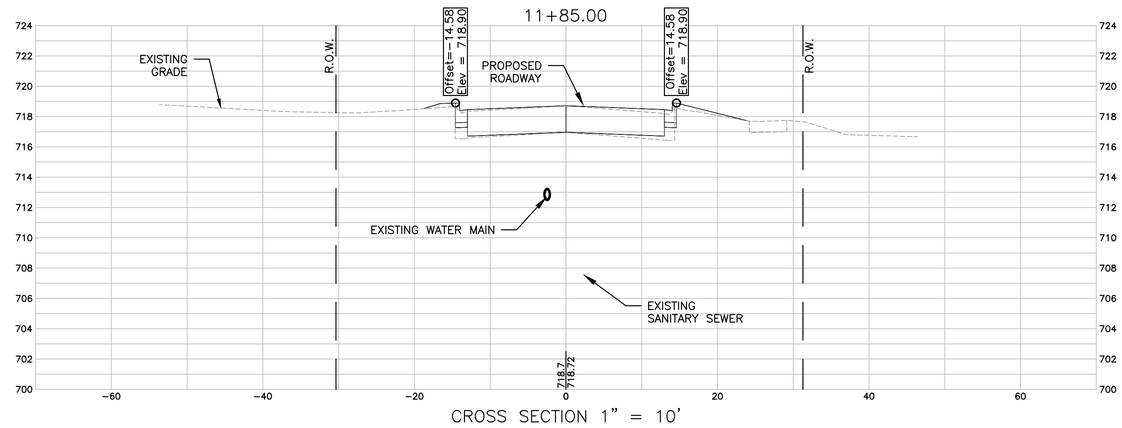
Xrefs: xgl−1−dh01; xc−1−xsec−Multi−Path

(LOW POINT)
10+94.80



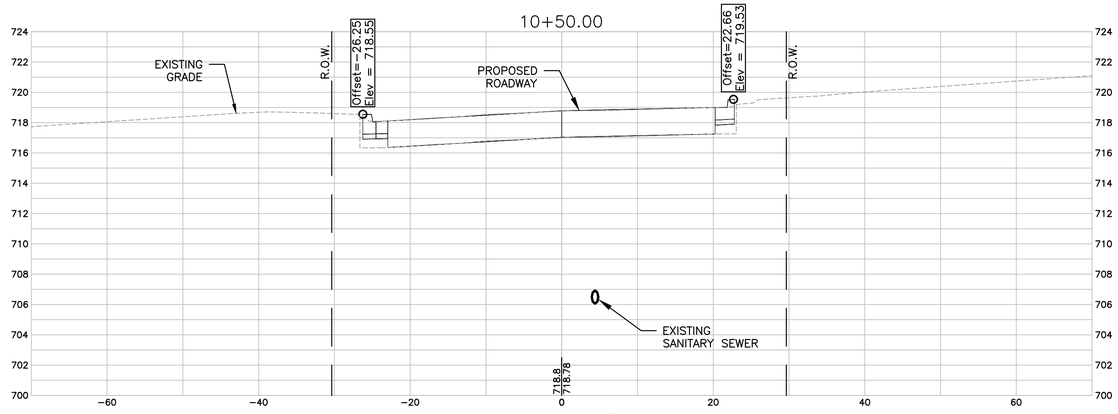
CROSS SECTION 1" = 10'

11+85.00



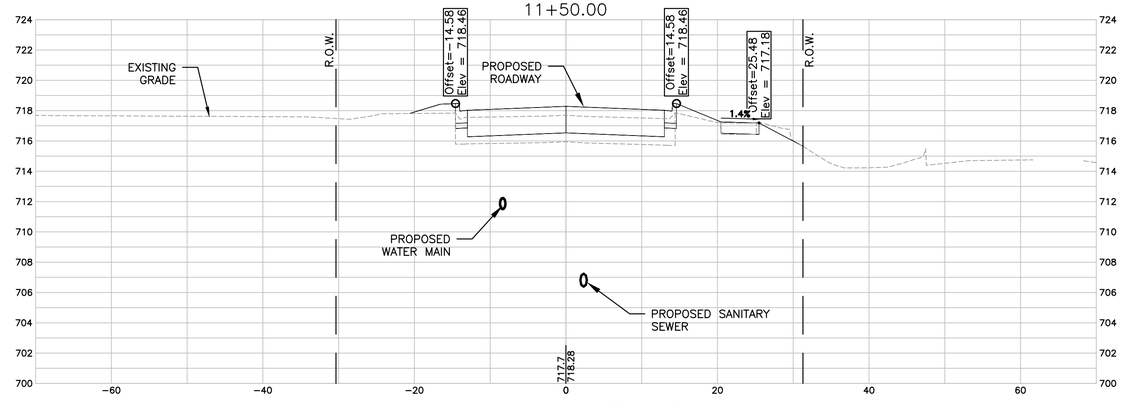
CROSS SECTION 1" = 10'

10+50.00



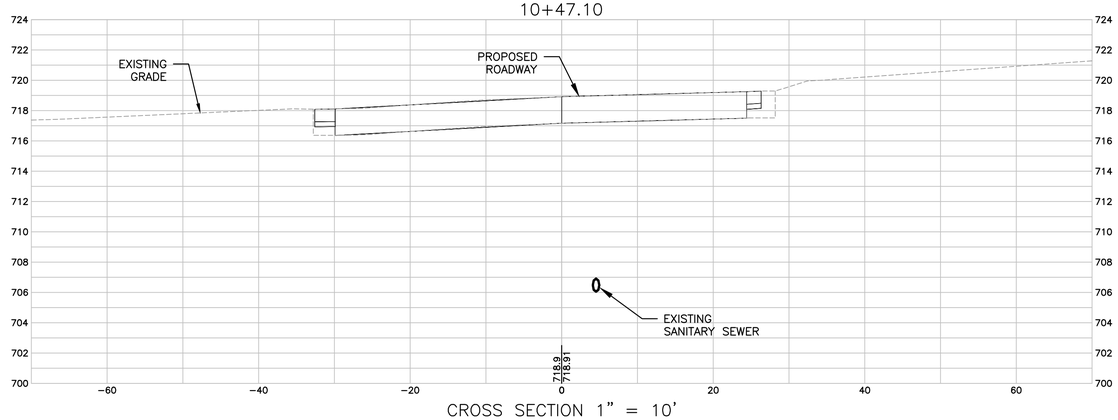
CROSS SECTION 1" = 10'

11+50.00



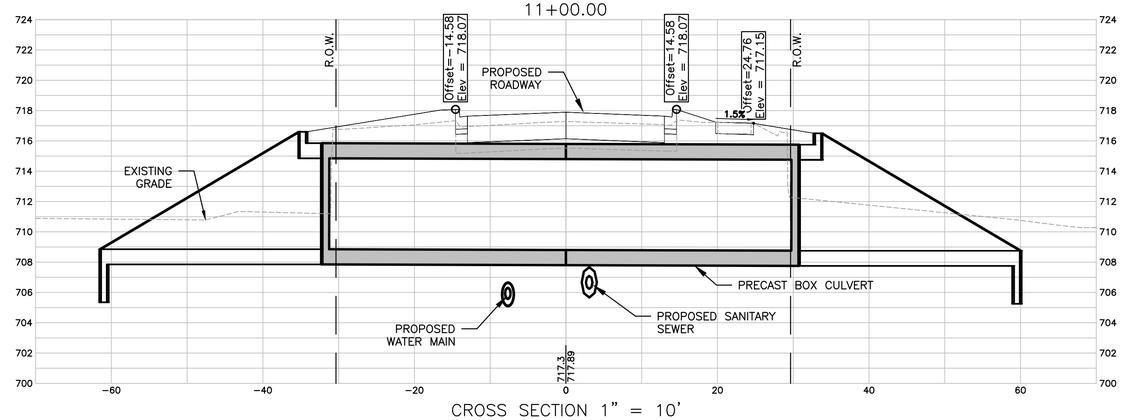
CROSS SECTION 1" = 10'

10+47.10



CROSS SECTION 1" = 10'

11+00.00



CROSS SECTION 1" = 10'

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DRAWN BY: CTK JOB DATE: OCTOBER 28, 2020
APPROVED: DVM JOB NUMBER: 170818
CAD DATE: 10/23/2020 8:11:07 AM
CAD FILE: J:\2017\170818\CAD\Dwgs\C\102 SOUTH AVE CROSS SECTIONS STA 10+44.10 TO 11+85.00.dwg

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HRGreen
ILLINOIS DESIGN FIRM # 184.001322
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FLOOD REDUCTION & WATER QUALITY IMPROVEMENTS – PHASE 1
CITY OF ST. CHARLES, IL
ST. CHARLES, IL

SHEETS
SOUTH AVE CROSS SECTIONS STA 10+44.10 TO 11+85.00

SHEET NO.
102

Xrefs: xgl-1-dr01; xc-1-xsec-pave