

CITY OF CRYSTAL LAKE

CRYSTAL CREEK

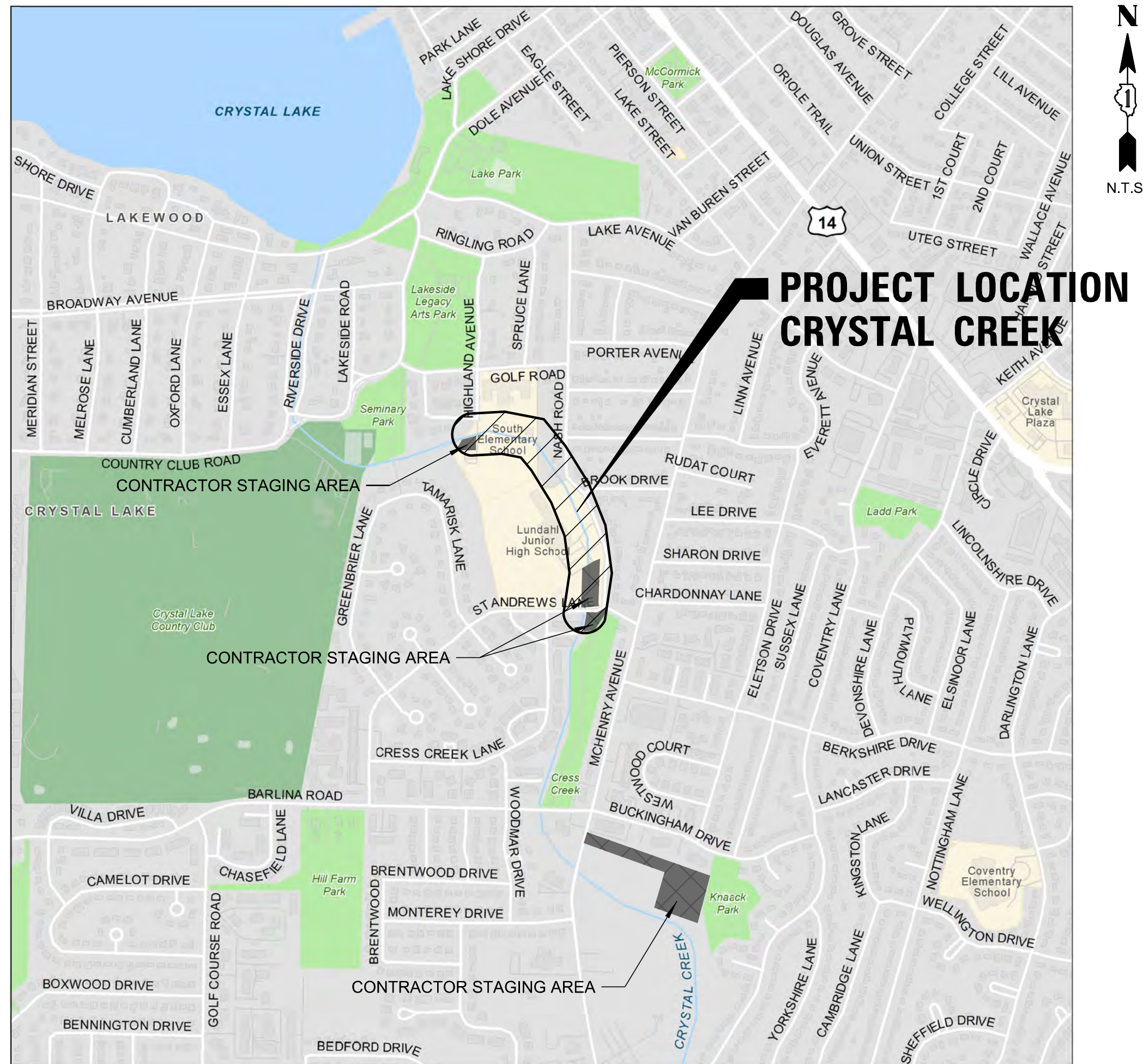
DAYLIGHTING PROJECT

PHASE 1 AND PHASE 2

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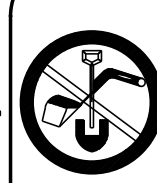
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10 / 7 / 2025

BENCHMARK

SEE ALIGNMENT, TIES, AND BENCHMARKS
SHEETS 4 - 5

LOCATION

CRYSTAL CREEK AT
LUNDAHL MIDDLE SCHOOL
ST. ANDREWS LN. & NASH RD.
IN CRYSTAL LAKE, ILLINOIS



CALL JULIE 811
WITH THE FOLLOWING:
COUNTY MCHENRY
CITY-TOWNSHIP CRYSTAL LAKE
48 HOURS BEFORE YOU DIG.
EXCLUDING SAT., SUN., & HOLIDAYS

THE CONTRACTOR SHALL BE SOLELY
RESPONSIBLE FOR JOB SITE SAFETY
AS WELL AS SUPERVISION/DIRECTION
AND MEANS/METHODS OF CONSTRUCTION



John A. Lapaglia
ENGINEER

10 / 7 / 25
DATE

JOHN A. LAPAGLIA
ILLINOIS REGISTRATION No. 062-070592
EXPIRATION DATE: 11/30/2025

CONSTRUCTABILITY REVIEW BY

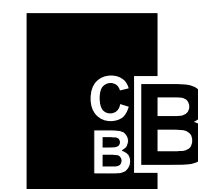
BILL SCHULTZ 12 / 5 / 23
REVIEWER DATE

CLIENT :



CITY OF CRYSTAL LAKE

100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014



CHRISTOPHER B. BURKE ENGINEERING, LTD.

9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

PROFESSIONAL DESIGN FIRM NO. 184-001175
EXPIRATION DATE: 04/30/27

1. ANY EXISTING OR PROPOSED STORM SEWER DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL EXISTING FACILITIES SO THAT THE UTILITIES AND THEIR APPURTENANCES MAY BE LOCATED AND/OR ADJUSTED, IF NECESSARY, PRIOR TO THE START OF CONSTRUCTION OPERATIONS.
3. THE LOCATIONS OF EXISTING DRAINAGE STRUCTURES, STORM AND SANITARY SEWERS, WATER SERVICE LINES AND OTHER UTILITY LINES ARE APPROXIMATE, AND THE CITY DOES NOT GUARANTEE THEIR ACCURACY. THEIR EXACT HORIZONTAL AND VERTICAL LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AT HIS OWN EXPENSE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER OR OWNER, OR REPLACED. SUCH WORK WILL BE AT THE CONTRACTOR'S EXPENSE.
5. WHEN IT IS NECESSARY TO SHUT OFF A WATER MAIN, THE CONTRACTOR SHALL PROVIDE THE CITY A MINIMUM 48 HOUR ADVANCE NOTICE, AND THE CITY WILL BE RESPONSIBLE FOR NOTIFYING ALL AFFECTED RESIDENTS. THE CITY WILL PROVIDE THE NECESSARY FORMS AND DETERMINE THE LIMITS OF AFFECTED AREAS.
6. THE CONTRACTOR SHALL NOT OPEN OR SHUT ANY WATER VALVES OR FIRE HYDRANTS. IF WATER IS NEEDED DURING CONSTRUCTION ACTIVITIES THE CONTRACTOR MUST CONTACT THE PUBLIC WORKS DEPARTMENT.
7. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, CABLE AND GAS FACILITIES AND THE CITY OF CRYSTAL LAKE PUBLIC WORKS DEPT. FOR FIELD LOCATIONS OF BURIED WATER, SANITARY AND STORM FACILITIES (48-HOUR ADVANCE NOTIFICATION IS REQUIRED).
8. TOP-OF-FORM ELEVATIONS SHOWN ON THE PLANS FOR DRAINAGE STRUCTURES IN THE CURB LINE ARE PROPOSED FLOW LINE ELEVATIONS.
9. DURING CONSTRUCTION OPERATIONS, WHENEVER ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINES OF DRAINAGE STRUCTURES SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION, ALL DRAINAGE AND UTILITY STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS.
10. ALL SEWER AND WATER SERVICES CROSSED BY NEW STORM SEWERS SHALL BE PROPERLY LOCATED AND PROTECTED DURING CONSTRUCTION. ANY DAMAGE DONE TO SAID SERVICES NOT CONSIDERED TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
11. THE COST OF CONNECTING PROPOSED STRUCTURES AND THE FIRST 5 FEET OF ASSOCIATED PIPE TO THE EXISTING DRAINAGE SYSTEM SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE STRUCTURE. HOWEVER, ANY ADDITIONAL PIPE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR "STORM SEWER" OF THE TYPE AND SIZE REQUIRED.
12. THE ENDS OF EXISTING DRAINAGE LINES AND HOLES IN EXISTING MANHOLES WHICH ARE NOT TO BE INCORPORATED INTO THE PROPOSED IMPROVEMENTS DESIGNATED BY THE ENGINEER SHALL BE SEALED WITH A PORTLAND CEMENT MORTAR TO THE SATISFACTION OF THE ENGINEER. COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. ABANDONED SEWER SHALL BE PLUGGED AT BOTH ENDS WITH TWO-FOOT LONG NON-SHRINK CONCRETE OR MORTAR PLUGS.
13. THE CONTRACTOR SHALL CONFIRM ALL EXISTING STORM SEWER PIPE SIZES AND INVERTS PRIOR TO ORDERING STRUCTURES. ANY MODIFICATION OF STRUCTURES DUE TO THE FAILURE OF THE CONTRACTOR TO PERFORM THIS TASK SHALL BE AT THE CONTRACTOR'S EXPENSE AND MAY LEAD TO THE REJECTION OF THE STRUCTURE IN THE FIELD. PIPE TYPES INDICATED ON THESE PLANS AT THE STRUCTURE CALL-OUTS ARE THE EXISTING TYPES IDENTIFIED IN THE FIELD.
14. THE CONTRACTOR SHALL PROVIDE ACCESS TO ADJUTING PROPERTIES AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT EXCEPT FOR PERIODS OF SHORT DURATION AS APPROVED BY THE ENGINEER.
15. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
16. PAY ITEMS IN THE SUMMARY OF QUANTITIES HAVE BEEN ESTIMATED. IF, IN THE ENGINEER'S OPINION, THE WORK IS NOT REQUIRED, THE ITEM WILL BE DEDUCTED FROM THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
17. ALL SAWCUTTING SHALL BE INCIDENTAL TO REMOVAL ITEMS AND SHALL BE PERFORMED PRIOR TO BEGINNING REMOVAL. ANY ITEMS OF WORK REMOVED PRIOR TO SAWCUTTING WILL NOT BE MEASURED FOR PAYMENT.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ERECTING ANY SIGNS AND POSTS REMOVED DURING CONSTRUCTION. RELOCATION OF EXISTING SIGNS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. IF DURING CONSTRUCTION THE CONTRACTOR DAMAGES ANY EXISTING SIGNS, HE WILL REPLACE THE SIGN AT NO COST TO THE CITY.
19. THE CONTRACTOR SHALL SAWCUT AND REMOVE ONLY THE NECESSARY AREA OF EXISTING PAVEMENT PRECEDED TO INSTALL THE PROPOSED STORM SEWER. THIS AREA SHALL BE BACKFILLED TO EXISTING PAVEMENT GRADE USING TRENCH BACKFILL SPECIAL. TRENCH BACKFILL, SPECIAL QUANTITIES ARE MEASURED FROM THE CENTER OF THE PROPOSED STORM SEWER TO THE TOP OF EXISTING PAVEMENT.
20. AT THE END OF EACH DAY, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ASSURE THAT ALL STREETS ADJACENT TO THE PROJECT ARE FREE OF ALL CONSTRUCTION RELATED DEBRIS INCLUDING DIRT, STONE, NAILS ETC. THIS WORK SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER AND THE CITY.
21. THE CONTRACTOR AND ENGINEER SHALL FIELD VERIFY ALL DRAINAGE STRUCTURES TO DETERMINE WHAT WORK IS REQUIRED AT EACH LOCATION.
22. ALL REMOVAL OR EXCAVATION ITEMS BEING DISPOSED OF AT AN UNCONTAMINATED SOIL FILL OPERATION OR CLEAN CONSTRUCTION AND DEMOLITION DEBRIS (CCDD) FILL SITE SHALL MEET THE REQUIREMENTS OF PUBLIC ACT 96-1416. ALL COSTS ASSOCIATED WITH MEETING THESE REQUIREMENTS SHALL BE INCLUDED IN THE UNIT PRICE COST FOR THE ASSOCIATED REMOVAL OR EXCAVATION ITEMS IN THE CONTRACT. THESE COSTS SHALL INCLUDE BUT ARE NOT LIMITED TO ALL REQUIRED TESTING, LAB ANALYSIS, CERTIFICATION BY A LICENSED PROFESSIONAL ENGINEER, AND STATE AND LOCAL TIPPING FEES.
23. THE LOCATIONS OF EXISTING WATER AND SANITARY SERVICES ARE SHOWN ON THE PLANS FOR INFORMATIONAL PURPOSES ONLY AND ARE APPROXIMATE. THEY HAVE BEEN ADDED FROM THE CITY'S "NORTH CRYSTAL LAKE PARK BEACH IMPROVEMENTS - CONTRACT A WATER MAIN AND SANITARY SEWER IMPROVEMENTS" AND THE CITY DOES NOT GUARANTEE THEIR ACCURACY. THEIR EXACT HORIZONTAL AND VERTICAL LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AT HIS OWN EXPENSE.
24. FIELD INVESTIGATIONS HAVE SHOWN THAT THE 24" STORM SEWER FROM CRYSTAL LAKE IS CONSTANTLY FLOWING EVEN DURING VERY DRY PERIODS. BUT NO PUMPING SHALL BE UTILIZED DURING CONSTRUCTION. DUE TO THE UNIQUE HYDROLOGY OF CRYSTAL LAKE, HIGHER THAN NORMAL FLOWS ARE EXPECTED FOR MULTIPLE DAYS FOLLOWING A RAIN EVENT. THE CONTRACTOR WILL BE PROVIDED WITH MODELED FLOW RATES.

1. Pre-Construction meeting shall be conducted with City Staff and all Contractors prior to commencing any grading or underground utility construction activities (schedule meeting with the Community Development Department at 815-356-3605).
2. 24-hour Emergency contact numbers shall be provided to City Staff at the Pre-Construction meeting.
3. Working hours shall be limited to the hours of 7:00 a.m. and 7:00 p.m. on weekdays only (except in cases of emergency). Non-emergency work on weekends or holidays is not permitted per City Code except under written permission from the City Engineer. The owner is responsible for the City Inspector's cost of overtime inspection beyond the normal eight (8) hour day, including weekends and holidays.
4. Public/private streets shall be kept free of dirt and debris with regular cleaning, sweeping, and scraping conducted by the Contractor. Junk and debris shall not be allowed to accumulate, blow, or scatter onto streets or adjacent properties.
5. J.U.L.I.E. shall be contacted for utility locations on-site and in the adjacent rights-of-way.
6. Contractor shall provide and maintain fencing, barricades, traffic control signs, and other safeguarding measures during the course of all work to protect the public from the construction operations.
7. Main access to adjacent streets during construction. No closing of streets unless approval is first obtained from the agency with jurisdiction (City of Crystal Lake, McHenry County Department of Transportation, Illinois Department of Transportation, etc).
8. Any damage to public right-of-way, public utilities, streets, curb, etc. shall be repaired/replaced as soon as possible and as directed by the City Engineer.
9. The contractor shall give the City of Crystal Lake, Illinois Department of Transportation, and any other governmental agency having jurisdiction, at least two (2) working days notice excluding Saturday and Sunday prior to the initiation of any phase of construction. Contractor shall immediately notify if construction has ceased and renew the two (2) working day notification thereafter.
10. The Contractor shall be responsible for obtaining all required permits for construction prior to commencement along or across existing streets or highways. The Contractor shall make arrangements for the proper bracing, shoring and other protection of all roadways before construction begins.

1. The grading and construction of the site improvements shall not cause ponding of storm sewer water. All areas adjacent to these improvements shall be graded to allow positive drainage.
2. The proposed grading elevations shown on the plans are finished grade. A minimum of six (6) inches of topsoil is to be placed before finished grade elevations are achieved.
3. Embankment material within parkway and open space areas shall be compacted to a minimum of ninety percent (90%) of maximum density in accordance with ASTM Specification D-1557 (modified proctor method), or to such other density as may be determined appropriate by the soils engineer.
4. All subgrade material shall have a minimum CBR (California Bearing Ratio) of 3.0 as determined by the soils engineer, or base replacement and pavement design revisions shall be provided which are adequate to obtain equivalent pavement strength.
5. Proposed pavement areas, building pads, driveways and sidewalks and yard/open space areas shall be excavated or filled to plus or minus 0.1 foot of design subgrade elevations by the Contractor.
6. Any proposed pit locations shall be identified by the Contractor on a copy of the approved site plans and forwarded to the Engineering Division at least 24-hours prior to excavation. Provide backfill compaction reports from a geotechnical engineer and as-built plans to the Engineering Division for any borrow pit area.
7. Backfill shall be monitored by a geotechnical engineer on-site with compaction reports forwarded to the Engineering Division for review.
8. Water truck shall be on-site at all times during mass-grading operations and be available as needed for the purposes of dust control or at the request of City Staff.
9. Use of City fire hydrants is not allowed unless approved (separate from this permit) by the Public Works Department and a hydrant meter and RPZ is obtained from the City of Crystal Lake Water Division (815-356-3614). Only the City of Crystal Lake Water Division may operate valves and hydrants.

Revised:
1. 06/12/2015
2.
3.
4.

STANDARD NOTES AND SPECIFICATIONS

Drawing Number		
GE-02a		
Date: 01/30/15		City of Crystal Lake Illinois
Drawn DD	Checked AW	

L:ENGINEERING AND BUILDING ENGINEERING DETAILS AND STANDARDS

1. Location of any on-site topsoil stockpiles shall be identified on the approved plans with silt fence installed around the perimeter of the stockpile.
2. Topsoil stockpiled for future use shall be relatively free from large roots, sticks, weeds, brush, stones larger than one (1) inch diameter, or other litter and waste products including other extraneous materials not conducive to plant growth.
3. Topsoil shall be stockpiled in sequence to eliminate any re-handling or double movements by the Contractor. Failure to properly sequence the stockpiling operations shall not constitute a claim for additional compensation. No material shall be stockpiled in front yards, in utility easements, or in the right-of-way lines.
4. If a stockpile is to remain in place for more than (14) calendar days, it is required that the stockpile meet the requirements as outlined in section 855 of the City Code.

1. All specified erosion control measures shall be installed and maintained per the requirements of the Crystal Lake Stormwater Ordinance in accordance with the active NPDES permit.
2. All slopes 4:1 or steeper shall be sodded or blanketed immediately after mass earthwork.
3. All overland flow routes to be stabilized by sod or blanket.
4. Erosion control measures to be inspected and approved by City Engineering Division prior to additional work on site.
5. Continuous monitoring of erosion control measures is required. Maintain records of weekly reports per the City of Crystal Lake Stormwater Ordinance.
6. The Contractor shall implement any additional erosion control measures deemed necessary by the City per the standards of the City Of Crystal Lake Stormwater Ordinance.
7. All storm sewer catch basins, sumps and/or retention basins provided are to be cleaned at the end of construction of the project prior to final acceptance. Cleaning may also be required during the course of the construction of the project if it is determined that the silt and debris traps are not properly functioning and their performance is impaired.

1. The Contractor shall coordinate water main, water service, sanitary and storm sewer inspections and testing with the Community Development staff at least 24 hours in advance.
2. All main line sanitary shall be cleaned and televised (provide DVD to the City's Engineering Division).
3. All manhole or valve covers shall be imprinted "City of Crystal Lake Sanitary", or "City of Crystal Lake Storm", or "City of Crystal Lake Water" as directed by the City.
4. Reference the latest edition of the Standard Specifications for Water and Sewer Main Construction in Illinois.
5. Existing manholes to be circular cored and booted.

Revised:
1. 06/12/2015
2. 02/25/2020
3.
4.

Drawing Name

**STANDARD NOTES
AND SPECIFICATIONS**

Drawing Number GE-02b	 City of Crystal Lake <u>Illinois</u>				
Date: 01/30/15					
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Drawn	Checked				
DD	AW				

L:ENGINEERING AND BUILDING\ENGINEERING\DETAILS AND STANDARDS

1. Non-shear stainless steel couplings shall be used when connecting sewer pipes of dissimilar materials and pipes with no hub joints. When connecting to an existing sanitary sewer by means other than an existing wye or manhole, contractor shall use a Sewer-Tap and hub-wye or hub-tie saddle.
2. Unless an alternate method is approved, water stop gaskets shall be provided at all sanitary sewer manhole connections. Type and manufacturer to be approved by the City.
3. PVC plastic sewer pipe and fittings of sizes 4-inch through 15-inch shall conform to the latest revised specification requirements of ASTM D3034 for type PSM polyvinyl chloride (PVC) sewer pipe and fittings of minimum wall thickness SDR 26.
4. Joints shall be either the solvent weld type conforming to the latest revised specification requirements of ASTM D2564 and ASTM D2855, or elastomeric gasket type conforming to the latest revised specification requirements of ASTM D1689 and ASTM D3212.
5. A thicker walled pipe such as SDR 18 may be specified by the engineer depending on design and/or field conditions.
6. PVC plastic sewer pipe and fittings of sizes 18-inch through 36-inch shall conform to the latest revised specification requirements of ASTM F793 or polyvinyl chloride (PVC) large diameter ribbed gravity sewer pipe and fittings, with integral bell gasketed joints and elastomeric gaskets to form a watertight seal conforming to the latest revised specification requirements of ASTM F477 or ASTM D3212.
7. Pipe and fittings shall be the products of one approved manufacturer only, and there shall not be any mixing of pipe and fittings of different manufacturers between manholes.
8. The handling and installation of pipe, assembly or joints, and manhole connections shall be in accordance with the manufacturer's recommendations.
9. Gasket-type watertop collars consist of a neoprene collar and a stainless steel band or other approved manhole watertop seal that is installed wherever the pipe passes through the manhole walls to provide a watertight joint to prohibit infiltration into the sewer system.
10. PVC pipe shall be installed in accordance with the latest revised specification requirements of ASTM D2321 using either compacted sand or 1 class II granular embedment materials for bedding, haunching and initial backfill of 12 inches over the top of the pipe to provide the necessary support for the pipe so that the maximum deflection does not exceed five percent of the pipe's original internal diameter.

11. The Contractor shall provide the necessary tools and equipment and perform the work necessary to test the deflection in the initial 1,200 feet of installed sewer and not less than ten percent (10%) of the remainder of the sewer project at random locations selected by the Engineer and no sooner than 30 days after the deflection has been completed. In the event that deflection is not completed within the 30 day period, a five percent (5%) of the Contractor shall test all other new flexible pipe for deflection. Deflection shall be tested by use of either a mandrel or rigid ball having a diameter equal to ninety-five percent (95%) of the inside diameter of the pipe, and the test shall be performed without using mechanical pulling devices. Wherever the deflection limitation is exceeded, the Contractor shall use the pipe, carefully replace compacted embankment and backfill material, and retest for deflection.
12. The Contractor shall subject all sanitary sewers, including service lines, to an air test. Air testing shall be performed in accordance with the latest Standard Specifications for Water and Sewer.
13. The Contractor shall subject all newly constructed sanitary manholes to the Negative Pressure (Vacuum) Test in accordance with ASTM C 1244. The Contractor shall also televise all public sanitary sewers. Televising of sanitary sewer shall be done on foot for televising, and testing shall be the responsibility of the Contractor.
14. Cast Iron Soil Pipe: service weight cast iron soil pipe and fittings conforming C.I.S.P. Specification HS-67 with compression type rubber gasket joints conforming to ASTM specification C564, or other suitable materials approved by the City Engineer.

Revised:
1. 06/12/2015
2. 01/25/2021 KL Vacuum Test Note 13
3.
4.

Drawing Name

**STANDARD NOTES
AND SPECIFICATIONS**

Drawing Number	
GE-02c	
Date: 01/30/15	
Drawn	Checked
DD	AW

L:ENGINEERING AND BUILDING|ENGINEERING DETAILS AND STANDARDS

1. Water main shall be Ductile Iron.
 - a) Ductile iron water main shall be Class 52 conforming to ANSI/AWWA C151/A21.51-09.
 - b) Ductile iron fittings shall conform to ANSI/AWA C153/A21.53 with mechanical joint gaskets.
2. All bolted connections shall be torqued to the manufacturer's specification. The Contractor shall verify the manufacturer's specification with an approved torque wrench.
3. Thrust blocking or Mega-Lugs with Mega-Bond coating or pre-approved equal shall be installed on water mains at all bends, tees, elbows, etc. except as noted below.
 - a) Thrust blocks not permitted with 45 degree vertical bends in water main (these shall be restrained with Mega-Lug or pre-approved equal).
5. Ductile iron pipe shall be encased in polyethylene and shall conform with ANSI/AWWA C105/A21.10 - 10 and ASTM A674-10.
6. Minimum cover from finished grade to top of water main shall be six (6) feet; Maximum cover shall be eight (8) feet.
7. Water Main Taps: An Illinois licensed plumber is required for any water main tap.
8. All water mains shall be subjected to a 2 hour pressure and leakage test by the Contractor in accordance with City Detail UW-09A and UW-09B. Water mains shall be chlorinated in accordance with City Detail UW-09A.
9. The Underground Contractor shall consider incidental to the contract any chlorination and testing of existing water main where connections to and conclusion of such mains is indicated on the drawing.
10. For repairs to existing PVC watermain, see details UW-12 and UW-13

1. All subgrades and bases shall be proof-rolled and approved by the Engineering Division prior to base or binder installation.
2. Subgrade and proposed pavements shall be finished by the Excavation Contractor to within 0.1 foot plus or minus, of plan elevation.
3. The Paving Contractor shall ensure that the subgrade has been properly prepared and that the finished top of subgrade elevation has been graded within the tolerances allowed in these specifications. Unless the Paving Contractor advises the owner and engineer in writing prior to fine grading for base course construction, it is understood that the Contractor has approved and accepts responsibility for the subgrade.
4. For the purpose of providing handicap accessibility and complying with the American Disability Act and City Standards, curbs shall be depressed at locations where public walks or pedestrian paths intersect curb lines at street intersections and other locations as directed.
5. ¼ inch thick premolded fiber expansion joints with two (2) No. 4 plain round steel dowel bars shall be installed at designated intervals and at all P.C., P.T., curb returns and at the end of each curb. Alternate ends of the dowel bars shall be greased and fitted with metal expansion tubes.
6. ¾ inch thick fiber expansion joints shall be used in every case where the sidewalk coincides with the curb and gutter. Contraction joints shall be saw cut at designated intervals in the curb. The cost of these joints shall be considered as incidental to the cost of the contract.
7. All poured in place concrete curb and gutter shall incorporate two (2) No. 4 reinforcing bars installed wherever the curb and gutter crosses utility service lines, the cost of which shall be considered incidental to the cost of concrete curb and gutter.
8. Sidewalks (where required) shall be of the thickness and dimensions as shown in the construction plans. All sidewalk concrete shall be a minimum of 6.1 bag mix (or IODT class S1 concrete) and shall develop a minimum of 3,500 psi compressive strength at fourteen (14) days. Contraction joints shall be set at five (5) foot centers, and one-half inch (½ inch) premolded fiber expansion joints at fifty (50) foot centers and where the sidewalk meets the curb or another sidewalk, or at the end of each pour. All sidewalks constructed over utility trenches and/or abutting driveway aprons shall be reinforced with three (3) No. 4 reinforcing bars (10 foot minimum length).

Revised:
1. 06/12/2015
2. KL 01/25/2021 Torque Specification
3. 02/06/2023 JRG - Update Water Main Note 8
4. 07/14/2023 JRG - Update Water Main Notes 1, 5, 10

Drawing Name

**STANDARD NOTES
AND SPECIFICATIONS**

Drawing Number	
GE-02d	
Date: 01/30/15	
Drawn	Checked
DD	AW

L:ENGINEERING AND BUILDING:ENGINEERING DETAILS AND STANDARD

SUMMARY OF QUANTITIES

CODE	ITEMS	UNIT	PHASE 1	PHASE 2	PROJECT TOTAL
			QUANTITY	QUANTITY	QUANTITY
20200100	EARTH EXCAVATION	CU YD	0	11,500	11,500
20101100	TREE TRUNK PROTECTION	EACH	10	10	20
20101200	TREE ROOT PRUNING	EACH	2	6	8
20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	2	6	8
20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	2	6	8
20400800	FURNISHED EXCAVATION (CLAY)	CU YD	0	675	675
20700220	POROUS GRANULAR EMBANKMENT	CU YD	855	1,660	2,515
*20800150	TRENCH BACKFILL, SPECIAL	CU YD	1,500	350	1,850
21101505	TOPSOIL EXCAVATION AND PLACEMENT (6")	CU YD	2,250	2,000	4,250
*25200200	SUPPLEMENTAL WATERING	UNIT	150	200	350
25000110	SEEDING, CLASS 1A	SQ YD	0	12,000	12,000
25000350	SEEDING, CLASS 7	SQ YD	12,500	0	12,500
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	250	340	590
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	250	340	590
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	250	340	590
25100125	MULCH, METHOD 3 (HYDROMULCH)	SQ YD	12,500	12,000	24,500
*25100630	EROSION CONTROL BLANKET	SQ YD	0	5,000	5,000
*25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	250	2,000	2,250
28000400	PERIMETER EROSION BARRIER	FOOT	3,500	3,500	7,000
28000500	INLET AND PIPE PROTECTION	EACH	11	0	11
28000510	INLET FILTERS	EACH	15	15	30
28100107	STONE RIPRAP, RR4 CHINKED WITH RR1	SQ YD	475	650	1,125
28200200	FILTER FABRIC	SQ YD	475	650	1,125
35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	500	1,500	2,000
35501304	HOT-MIX ASPHALT BASE COURSE, 5"	SQ YD	500	1,500	2,000
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	9,000	12,000	21,000
40600827	LEVELING BINDER (MACHINE METHOD), IL9.5, N50	TON	20	75	95
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	75	200	275
40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	65	200	265
*42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH (SPECIAL)	SQ FT	5,750	8,500	14,250
*42400800	DETECTABLE WARNINGS	SQ FT	50	900	950
*44000100	PAVEMENT REMOVAL	SQ YD	500	1,500	2,000
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	1,000	1,500	2,500
44000300	CURB REMOVAL	FOOT	10	200	210
44000400	COMBINATION CURB AND GUTTER REMOVAL	FOOT	0	150	150
44000600	SIDEWALK REMOVAL	SQ FT	4,500	7,250	11,750
*44201347	CLASS C PATCH, 9" (SPECIAL)	SQ YD	0	125	125
*44201759	CLASS D PATCH, 9" (SPECIAL)	SQ YD	500	50	550
50104400	CONCRETE HEADWALL REMOVAL	EACH	2	2	4
*50105220	PIPE CULVERT REMOVAL	FOOT	0	300	300
50200100	STRUCTURE EXCAVATION	CU YD	1,355	2,635	3,990
51500100	NAME PLATES	EACH	1	2	3
*54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2	4	6
*54001002	BOX CULVERT END SECTIONS, CULVERT NO. 2	EACH	2	4	6
54010706	PRECAST CONCRETE BOX CULVERTS 7' X 6'	FOOT	150	228	378
54010905	PRECAST CONCRETE BOX CULVERTS 9' X 5'	FOOT	129	324	453
*54210192	PIPE ELBOW, 36" HDPE, 45 DEGREES	EACH	2	0	2
*54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	0	4	4
*54213681	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 36"	EACH	1	1	2
*54213693	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 48"	EACH	1	0	1
550A0340	STORM SEWERS, CLASS A, TYPE 2 12" (RCP)	FOOT	25	100	125
550A0410	STORM SEWERS, CLASS A, TYPE 2 24" (RCP)	FOOT	825	0	825
550A0450	STORM SEWERS, CLASS A, TYPE 2 36" (RCP)	FOOT	50	50	100
550A0480	STORM SEWERS, CLASS A, TYPE 2 48" (RCP)	FOOT	80	0	80
550B0410	STORM SEWERS, CLASS B, TYPE 2 24" (PVC)	FOOT	50	0	50
550B0450	STORM SEWERS, CLASS B, TYPE 2 36" (HDPE)	FOOT	80	0	80
*55100300	STORM SEWER REMOVAL 8"	FOOT	25	0	25
*55100500	STORM SEWER REMOVAL 12"	FOOT	75	0	75
*55101200	STORM SEWER REMOVAL 24"	FOOT	1,025	0	1,025
*55101400	STORM SEWER REMOVAL 30"	FOOT	150	300	450
*55101600	STORM SEWER REMOVAL 36"	FOOT	450	1,625	2,075
*56106200	ADJUSTING WATER MAIN 4"	FOOT	65	0	65
*56106300	ADJUSTING WATER MAIN 6"	FOOT	65	0	65
*56106400	ADJUSTING WATER MAIN 8"	FOOT	75	0	75
*56106600	ADJUSTING WATER MAIN 12"	FOOT	40	0	40
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	330	675	1,005
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	0	5	5
*60200105	CATCH BASINS, TYPE A, 4'-DIAMETER, EJ 7030 FRAME	EACH	0	2	2
*60203805	CATCH BASINS, TYPE A, 5'-DIAMETER, EJ 7010 FRAME, T1 BACK, M2 GRATE	EACH	2	0	2
*60221100	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	8	0	8

CODE	ITEMS	UNIT	PHASE 1	PHASE 2	PROJECT TOTAL
			QUANTITY	QUANTITY	QUANTITY
*60223800	MANHOLES, TYPE A, 6'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	0	1
*60224459	MANHOLES, TYPE A, 8'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	0	1
*60234200	INLETS, TYPE A, EJ 7010 FRAME, T1 BACK, M2 GRATE	EACH	2	0	2
*60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	0	125	125
*60603500	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (SPECIAL)	FOOT	250	425	675
66400105	CHAIN LINK FENCE, 4'	FOOT	75	0	75
66400705	CHAIN LINK GATES (4' WIDE) (4' HIGH) DOUBLE GATE	EACH	1	0	1
67100100	MOBILIZATION	L. SUM	0.5	0.5	1
*70100100	TRAFFIC CONTROL AND PROTECTION, SPECIAL	L. SUM	0.5	0.5	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	8	0	8
72900100	METAL POST - TYPE A	FOOT	0	75	75
72000100	SIGN PANEL - TYPE 1	SQ FT	0	50	50
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	20	20	40
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	700	150	850
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	75	0	75
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	200	275	475
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	20	20	40
*X0322938	HDPE FLARED END SECTIONS 36" W/ GRATE	EACH	2	0	2
*X0327067	STEEL CASING PIPE, 16"	FOOT	75	0	75
*X0327067	STEEL CASING PIPE, 20"	FOOT	50	0	50
*X0327146	BIKE RACK REMOVAL AND REPLACEMENT	EACH	11	0	11
*X0327355	SPLIT RAIL FENCE	FOOT	175	1,000	1,175
*X0487850	SANITARY SEWER REMOVAL 8"	FOOT	175	0	175
*X0487850	SANITARY SEWER REMOVAL 15"	FOOT	750	0	750
*X0487850	SANITARY SEWER REMOVAL 18"	FOOT	100	0	100
*X0900064	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	330	675	1,005
*X2200020	FENCE REMOVAL AND REINSTALLATION	FOOT	150	75	225
*X6022312	DROP SANITARY MANHOLES, 4' DIAMETER, WITH TYPE 1 FRAME, CLOSED LID	EACH	2	0	2
*X6026054	SANITARY MANHOLES TO BE REMOVED	EACH	7	0	7
*X6026055	SANITARY MANHOLE, 4' DIAMETER, WITH TYPE 1 FRAME, CLOSED LID	EACH	7	0	7
*X2200010	ALUMINUM FENCE (4' HIGH), BLACK	FOOT	0	2,500	2,500
*X2200010	ALUMINUM FENCE GATE (4' WIDE) (4' HIGH), BLACK	EACH	0	14	14
*Z0013797	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	350	350	700
*Z0013798	CONSTRUCTION LAYOUT	L. SUM	0.5	0.5	1
*Z0017400	STRUCTURES TO BE ADJUSTED	EACH	0	2	2
*Z0017500	STRUCTURES TO BE ADJUSTED (SPECIAL)	EACH	2	0	2
*Z0018700	DRAINAGE STRUCTURE TO BE REMOVED	EACH	9	6	15
*Z0022800	FENCE REMOVAL	FOOT	150	450	600
*Z0055905	TEMPORARY CONSTRUCTION FENCE	FOOT	400	0	400
*Z0055905	CONSTRUCTION FENCE, 6' HEIGHT, WITH BLACK FABRIC SCREEN	FOOT	750	750	1,500
*Z0056900	SANITARY SEWER, 8" (PVC SDR-26)	FOOT	250	0	250
*Z0057200	SANITARY SEWER, 15" (PVC SDR-26)	FOOT	825	0	825
*Z0057300	SANITARY SEWER, 18" (PVC SDR-26)	FOOT	175	0	175
A2001024	TREE, ACER RUBRUM (RED MAPLE), 3" CALIPER, BALLED AND BURLAPPED	EACH	0	5	5
A2002368	BETULA NIGRA (RIVER BIRCH), 7' CLUMP, BALLED AND BURLAPPED	EACH	0	5	5
A2006420	QUERCUS ALBA (WHITE OAK), 2 1/2", BALLED AND BURLAPPED	EACH	0	7	7
A2007624	TAXODIUM DISTICHUM (BALD CYPRESS), 3", BALLED AND BURLAPPED	EACH	0	5	5
A2008424	TILIA TOMENTOSA 'STERLING' (STERLING SILVER LINDEN), 3", BALLED AND BURLAPPED	EACH	0	5	5
A2008453	TREE, ULMUS ACCOLADE (HYBRID ELM), 3" CALIPER, BALLED AND BURLAPPED	EACH	0	2	2
C2C00424	ARONIA ARBUTIFOLIA (RED CHOKEBERRY), #5, CONTAINER	EACH	0	4	4
C2C03724	HYPERICUM PROLIFICUM (SHRUBBY ST. JOHN'S WORT), #1, CONTAINER	EACH	0	7	7
K1005481	SHREDDED BARK MULCH	CU YD	0	10	10
*NA	COFFERDAMS, DEWATERING, AND BYPASS PUMPING	L. SUM	0.5	0.5	1
*NA	CURB, "V" GUTTER	FOOT	0	620	620
*NA	ITEMS ORDERED BY THE ENGINEER	DOLLAR	50,000	50,000	100,000
*NA	LIFT STATION REMOVAL	L. SUM	1	0	1
*NA	MAINTENANCE AND MONITORING	YEAR	0	3	3
*NA	POINT BAR	SQ YD	0	925	925
*NA	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH WITH INTERGAL CURB	SQ FT	0	2,500	2,500
*NA	RESTRICTOR PLATE REMOVAL	EACH	0	2	2
*NA	SEEDING, NATIVE PRAIRIE MIX	SQ YD	0	5,000	5,000
*NA	SEEDING, WET PRAIRIE/SHORELINE MIX	SQ YD	0	600	600
*NA	SILL	SQ YD	0	50	50
*NA	SOCCER GOAL POSTS TO BE RELOCATED	EACH	2	0	2
*NA	STRAW WATTLE	FOOT	0	3,000	3,000
*NA	TELEWISE STORM SEWER, 24"	FOOT	960	0	960
*NA	TELEWISE STORM SEWER, 36"	FOOT	0	110	110
*NA	TOE PROTECTION	SQ YD	0	850	850

*INDICATES SPECIAL PROVISION



CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

				DSGN.	JAL	DTO
				DWN.	MAK	
				CHKD.	JGS	WJS
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TITLE:

CRYSTAL CREEK
DAYLIGHTING PROJECT
SUMMARY OF QUANTITIES

PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 3 OF 93

DRAWING NO.

SEE SHEET 5 FOR CONTROL POINTS TIES

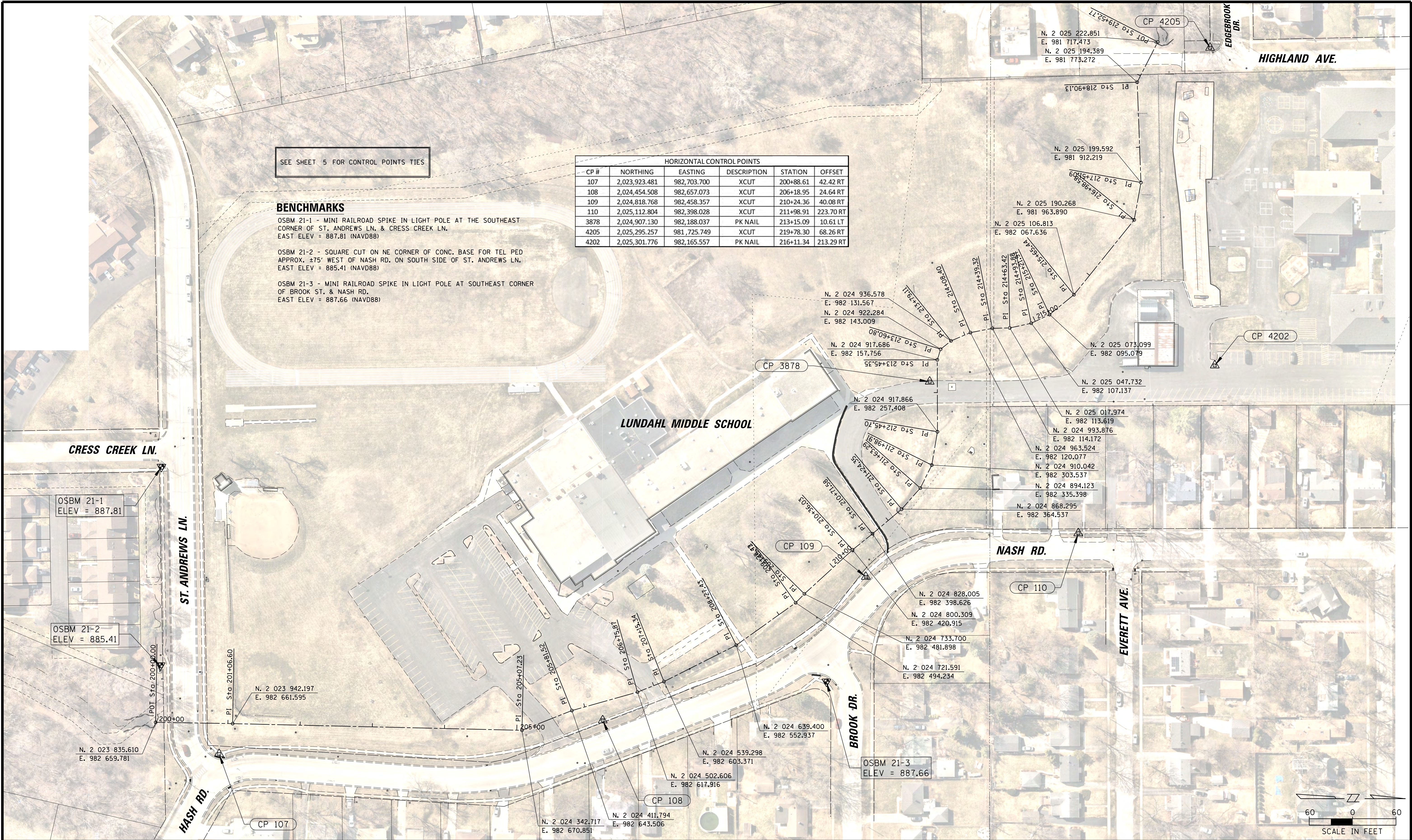
BENCHMARKS

OSBM 21-1 - MINI RAILROAD SPIKE IN LIGHT POLE AT THE SOUTHEAST CORNER OF ST. ANDREWS LN. & CRESS CREEK LN.
EAST ELEV = 887.81 (NAVD88)

OSBM 21-2 - SQUARE CUT ON NE CORNER OF CONC. BASE FOR TEL PED APPROX. ±75' WEST OF NASH RD. ON SOUTH SIDE OF ST. ANDREWS LN.
EAST ELEV = 885.41 (NAVD88)

OSBM 21-3 - MINI RAILROAD SPIKE IN LIGHT POLE AT SOUTHEAST CORNER OF BROOK ST. & NASH RD.
EAST ELEV = 887.66 (NAVD88)

HORIZONTAL CONTROL POINTS					
CP #	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
107	2,023,923.481	982,703.700	XCUT	200+88.61	42.42 RT
108	2,024,454.508	982,657.073	XCUT	206+18.95	24.64 RT
109	2,024,818.768	982,458.357	XCUT	210+24.36	40.08 RT
110	2,025,112.804	982,398.028	XCUT	211+98.91	223.70 RT
3878	2,024,907.130	982,188.037	PK NAIL	213+15.09	10.61 LT
4205	2,025,295.257	981,725.749	XCUT	219+78.30	68.26 RT
4202	2,025,301.776	982,165.557	PK NAIL	216+11.34	213.29 RT



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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

				DSGN.	JAL	DT0
				DWN.	MAK	
				CHKD.	JGS	005
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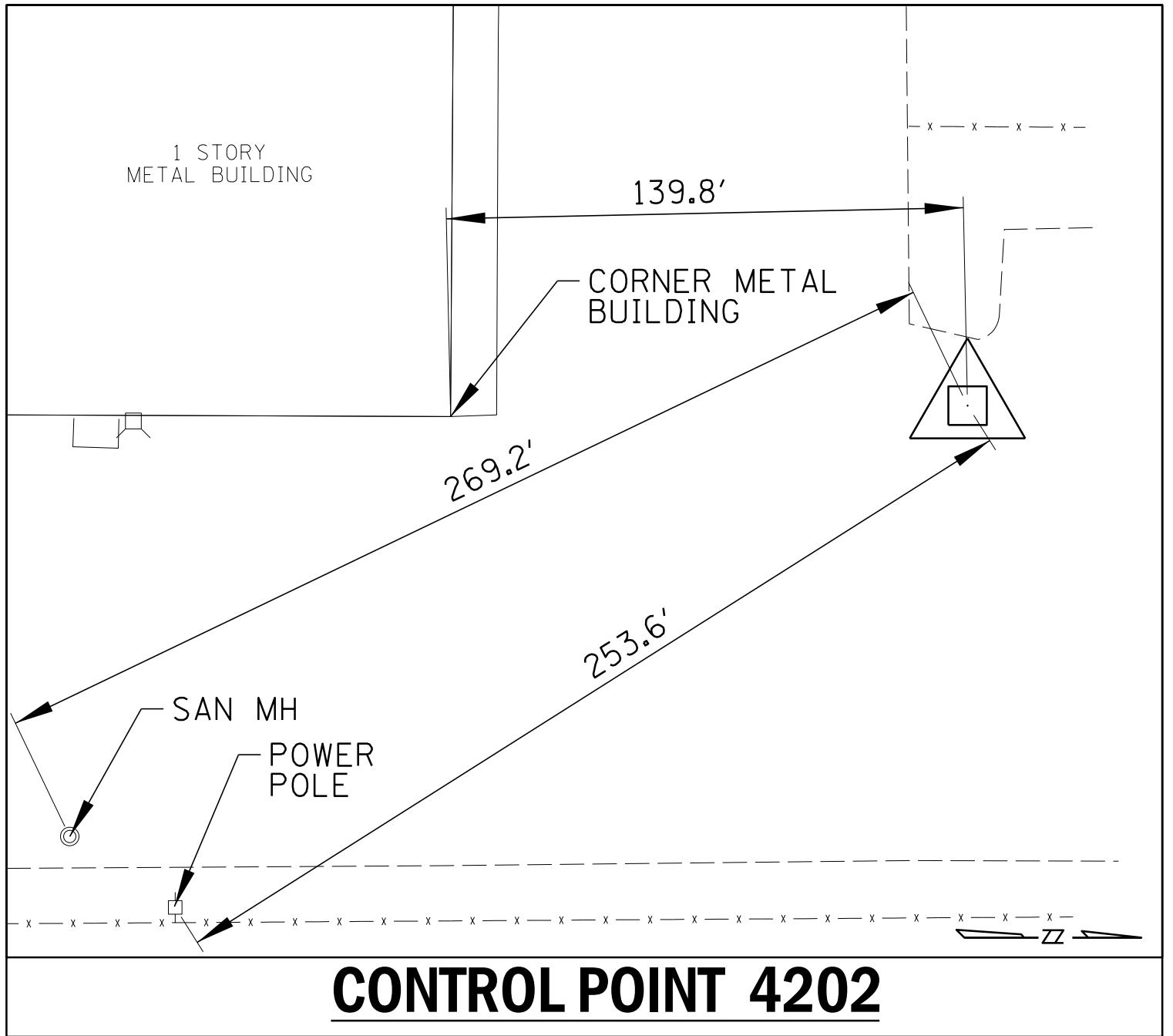
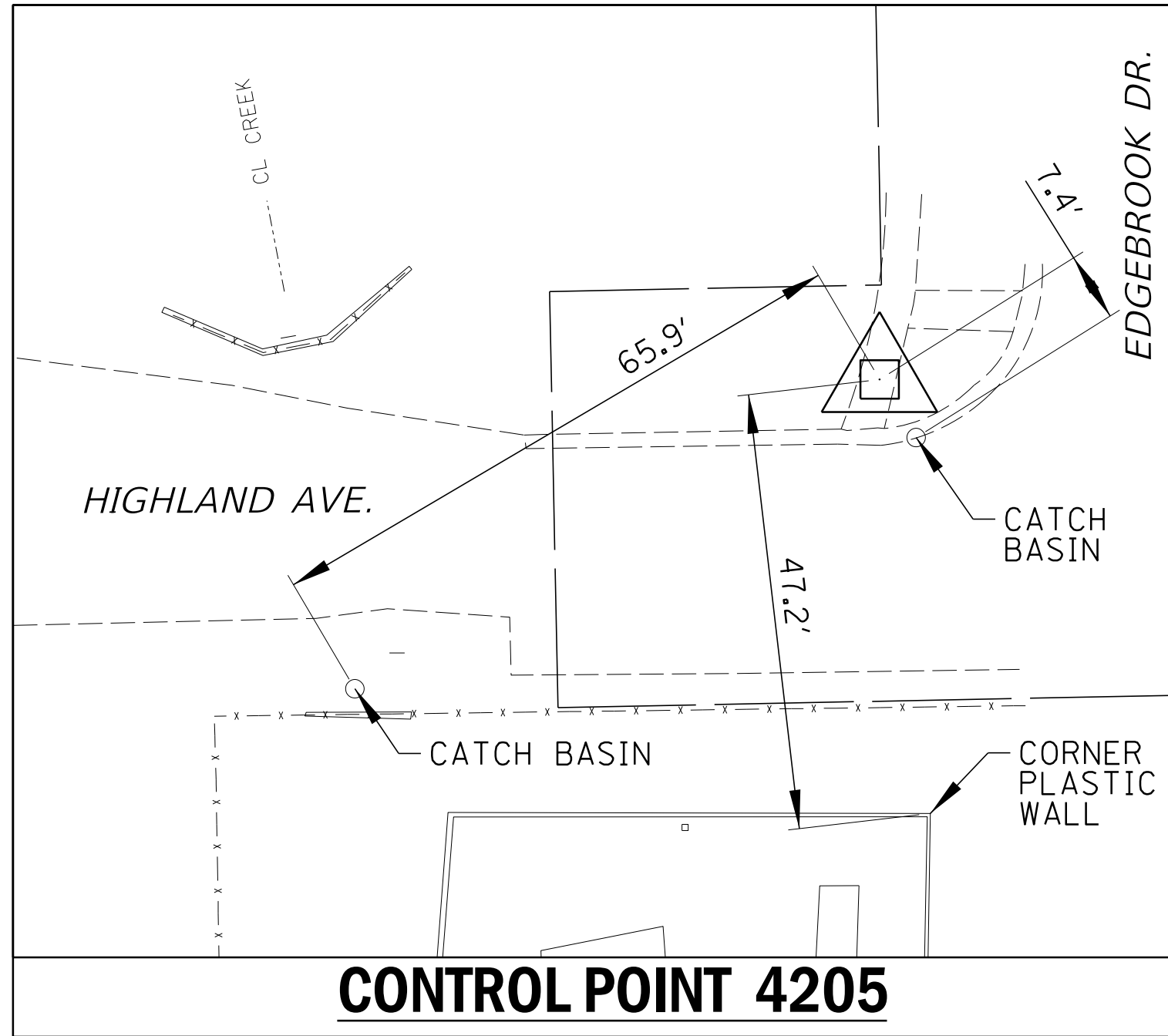
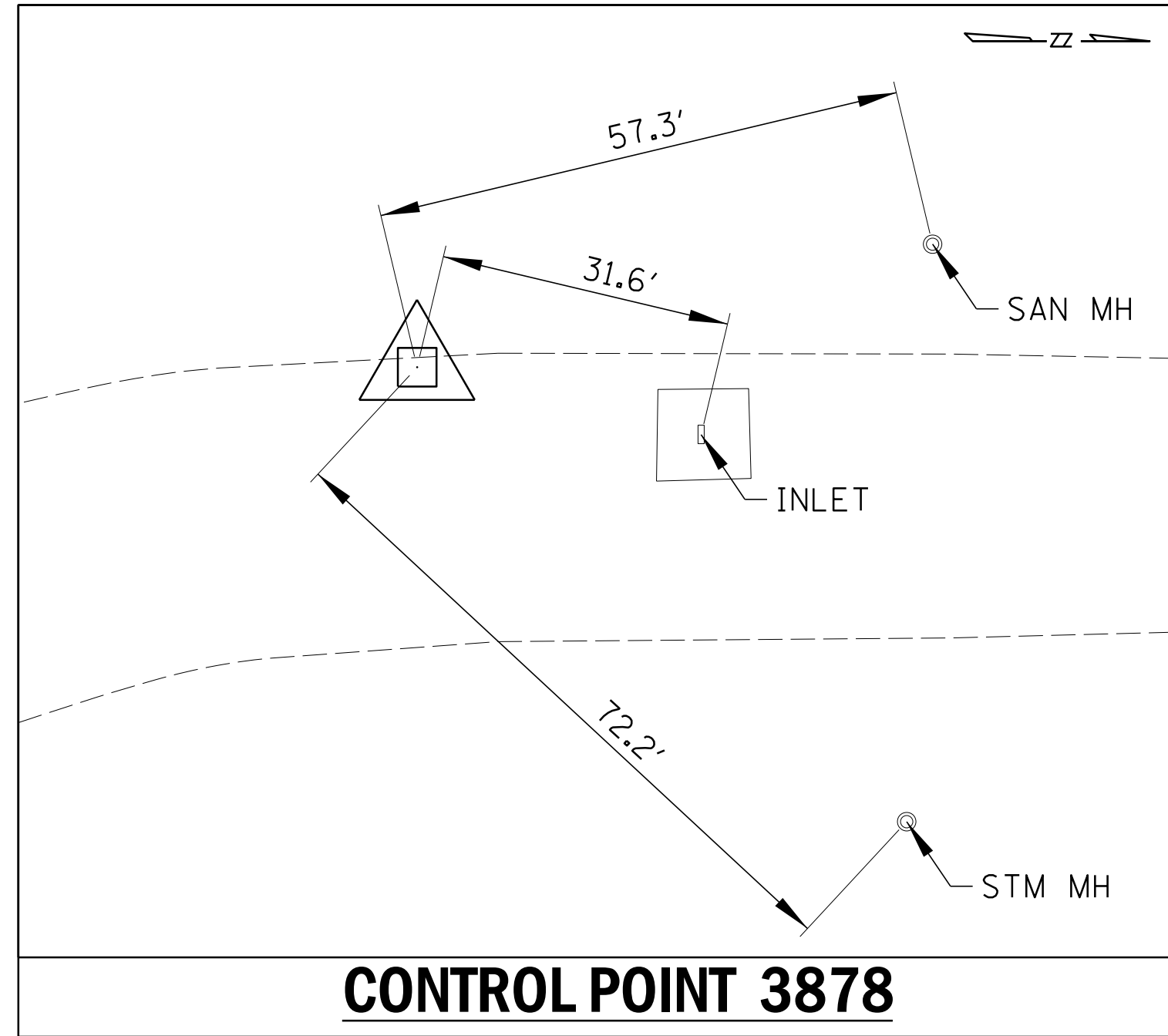
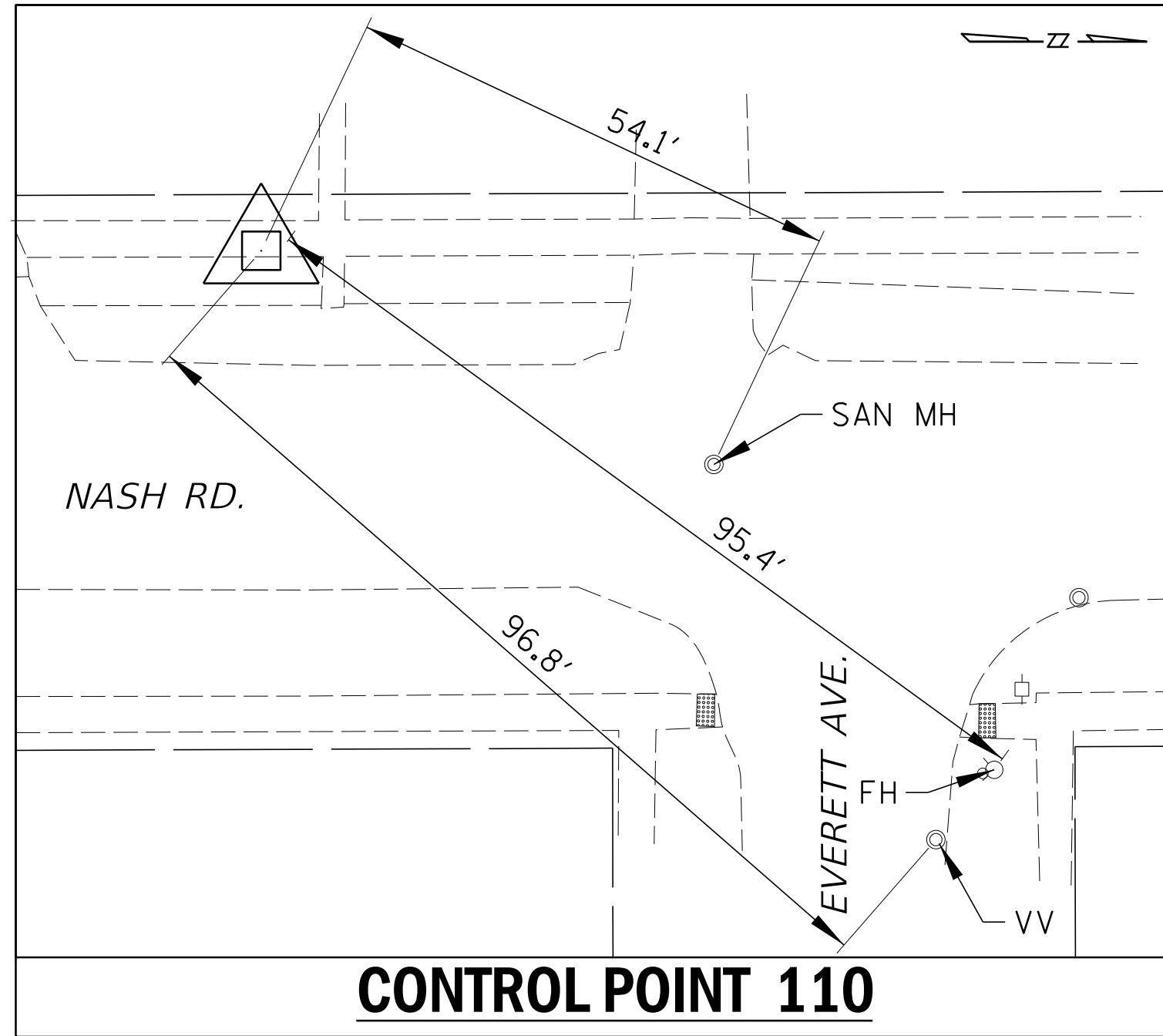
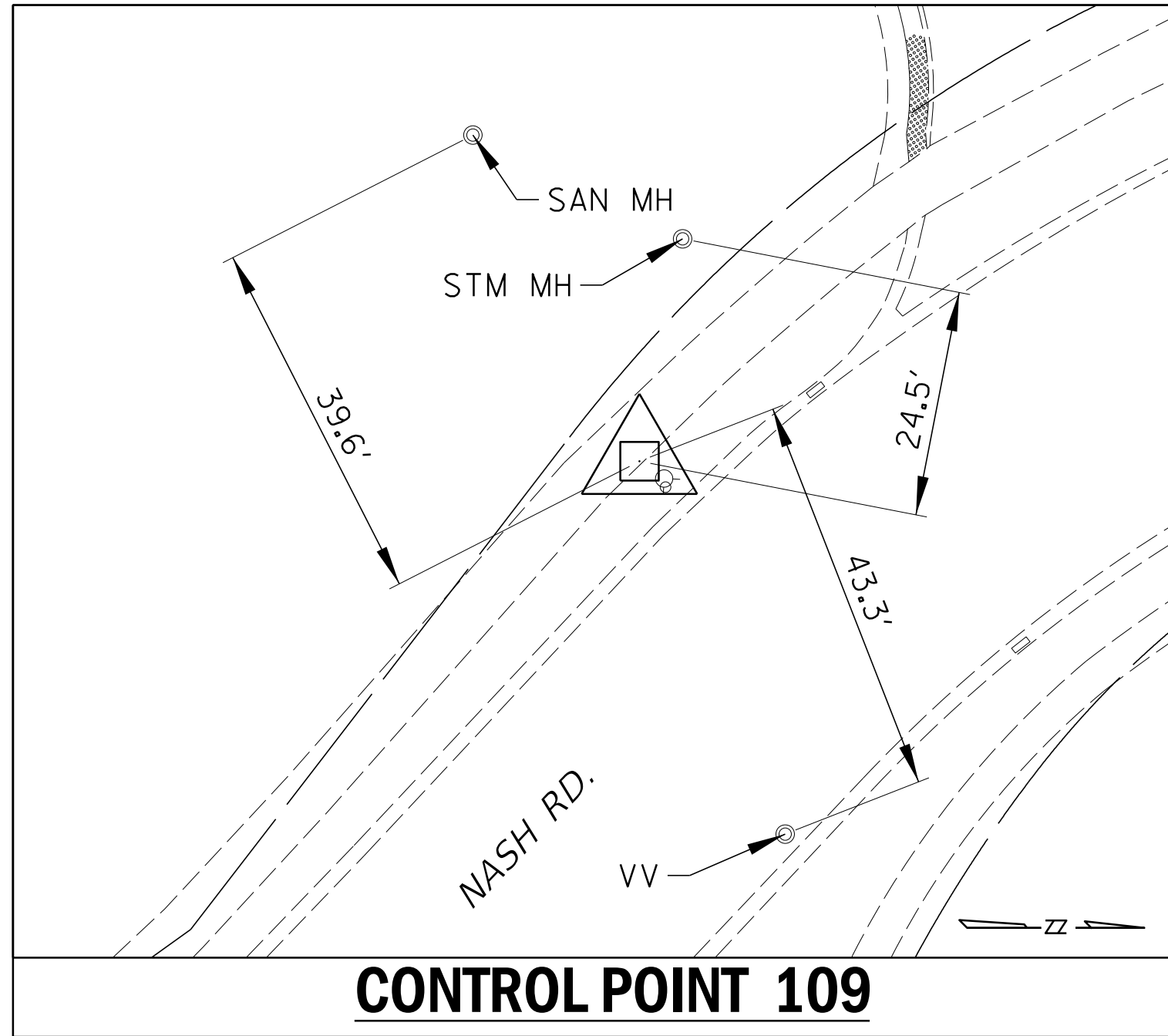
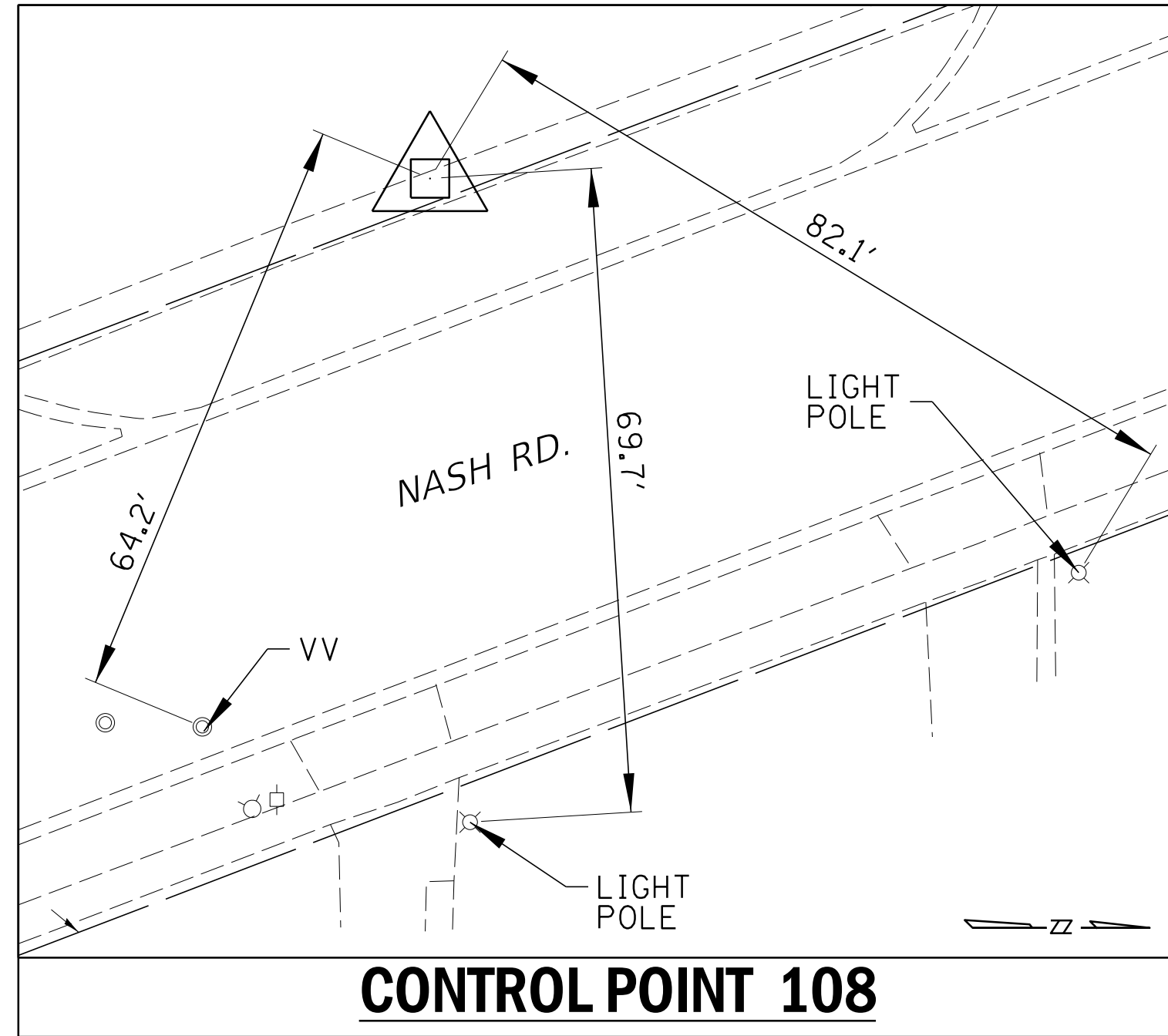
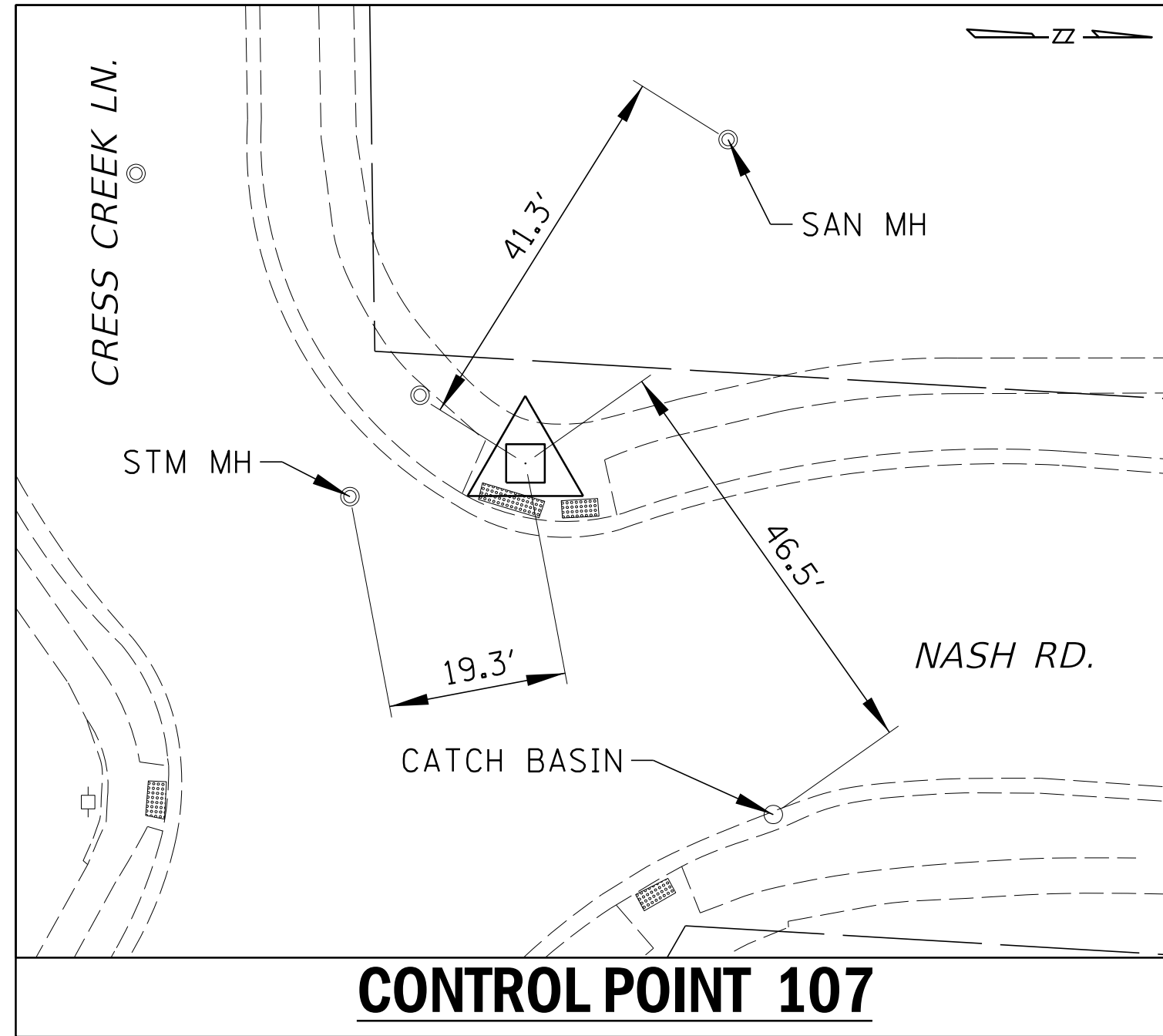
**CRYSTAL CREEK
DAYLIGHTING PROJECT**
ALIGNMENT, TIES AND BENCHMARKS

PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 4 OF 93

DRAWING NO.



CHRISTOPHER B. BURKE ENGINEERING, LTD.
 9575 W. Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

CLIENT:



CITY OF CRYSTAL LAKE
 100 W. WOODSTOCK STREET
 CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:	Default
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CHKD.	JGS	006
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PLOT DATE:	10/6/2025	
CAD USER:	mkoonce	
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TITLE:

**CRYSTAL CREEK
 DAYLIGHTING PROJECT**
ALIGNMENT, TIES AND BENCHMARKS

PROJ. NO. 08-0364.55B

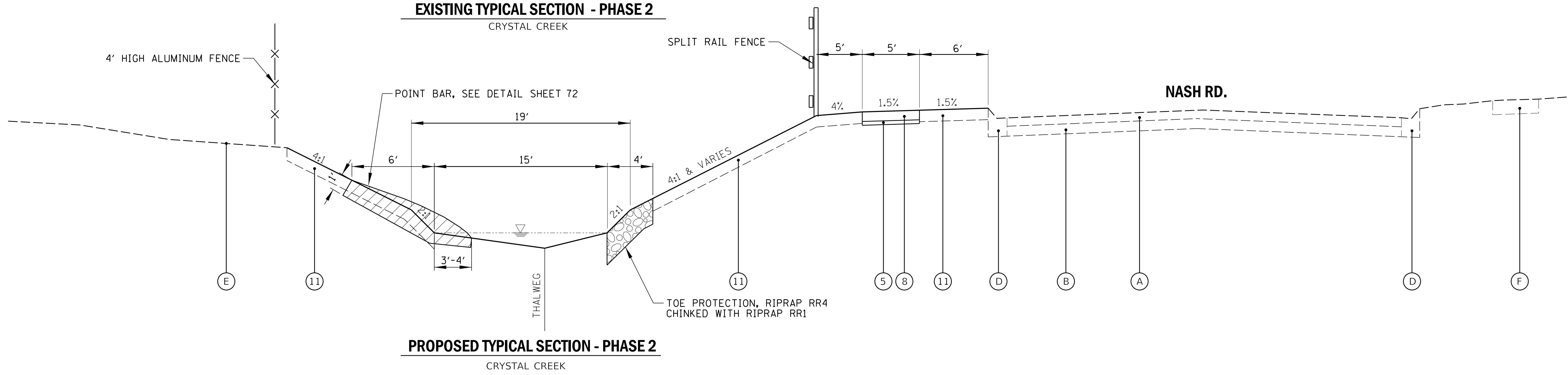
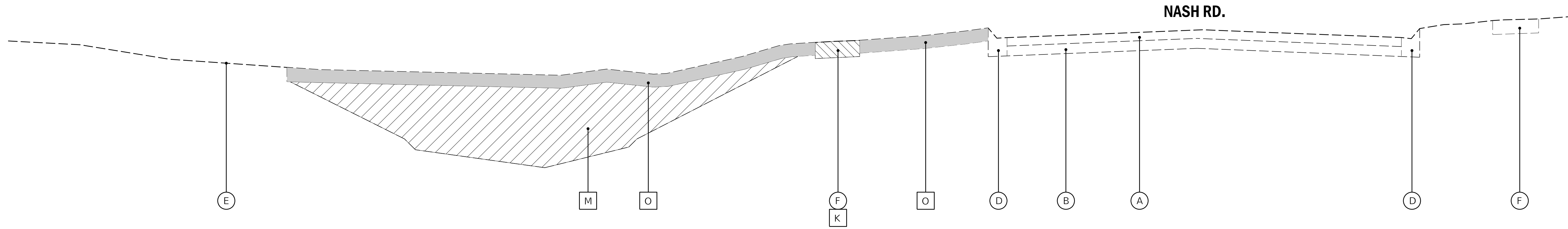
DATE: 10/6/2025

SHEET 5 OF 93

DRAWING NO.

CRYSTAL CREEK EARTHWORK SCHEDULE										
STA.	DIST. (FT)	EARTH EXCAVATION			FURNISHED EMBANKMENT			TOPSOIL PLACEMENT		
		AREA (SF)	AVE. AREA (SF)	VOLUME (CY)	AREA (SF)	AVE. AREA (SF)	VOLUME (CY)	AREA (SF)	AVE. AREA (SF)	VOLUME (CY)
199+00.00		0.00			0.00			0.00		
	105.00		0.50	1.94		31.50	122.50		13.00	50.56
200+05.00		1.00			63.00			26.00		
	20.00		30.50	22.59		31.50	23.33		13.00	9.63
200+25.00		60.00			0.00			0.00		
	25.00		88.50	81.94		0.00	0.00		0.00	0.00
200+50.00		117.00			0.00			0.00		
	25.00		74.50	68.98		1.50	1.39		19.50	18.06
200+75.00		32.00			3.00			39.00		
	13.00		143.00	68.85		1.50	0.72		36.00	17.33
200+88.00		254.00			0.00			33.00		
	12.00		248.00	110.22		0.00	0.00		33.00	14.67
201+00.00		242.00			0.00			33.00		
	25.00		236.50	218.98		0.00	0.00		31.50	29.17
201+25.00		231.00			0.00			30.00		
	25.00		217.00	200.93		0.00	0.00		28.50	26.39
201+50.00		203.00			0.00			27.00		
	25.00		194.00	179.63		0.00	0.00		26.50	24.54
201+75.00		185.00			0.00			26.00		
	25.00		182.00	168.52		1.50	1.39		26.00	24.07
202+00.00		179.00			3.00			26.00		
	25.00		180.50	167.13		5.50	5.09		26.50	24.54
202+25.00		182.00			8.00			27.00		
	25.00		178.50	165.28		10.00	9.26		28.00	25.93
202+50.00		175.00			12.00			29.00		
	25.00		167.00	154.63		13.00	12.04		28.50	26.39
202+75.00		159.00			14.00			28.00		
	25.00		155.00	143.52		13.50	12.50		27.50	25.46
203+00.00		151.00			13.00			27.00		
	25.00		148.50	137.50		12.00	11.11		26.50	24.54
203+25.00		146.00			11.00			26.00		
	25.00		143.00	132.41		9.50	8.80		26.00	24.07
203+50.00		140.00			8.00			26.00		
	25.00		139.00	128.70		6.00	5.56		26.50	24.54
203+75.00		138.00			4.00			27.00		
	13.00		71.00	34.19		26.50	12.76		31.50	15.17
203+88.00		4.00			49.00			36.00		
	12.00		14.50	6.44		50.50	22.44		31.50	14.00
204+00.00		25.00			52.00			27.00		
	25.00		21.00	19.44		55.00	50.93		28.00	25.93
204+25.00		17.00			58.00			29.00		
	25.00		17.50	16.20		55.00	50.93		19.50	18.06
204+50.00		18.00			52.00			10.00		
	25.00		21.50	19.91		63.50	58.80		16.50	15.28
204+75.00		25.00			75.00			23.00		
	10.00		28.50	10.56		82.00	30.37		28.50	10.56
204+85.00		32.00			89.00			34.00		
	15.00		69.50	38.61		44.50	24.72		29.50	16.39
205+00.00		107.00			0.00			25.00		
	25.00		121.50	112.50		0.00	0.00		25.00	23.15
205+25.00		136.00			0.00			25.00		
	25.00		157.00	145.37		0.00	0.00		25.50	23.61
205+50.00		178.00			0.00			26.00		
	25.00		145.50	134.72		0.00	0.00		25.50	23.61
205+75.00		113.00			0.00			25.00		
	25.00		113.00	104.63		0.00	0.00		24.50	22.69
206+00.00		113.00			0.00			24.00		
	25.00		117.00	108.33		0.00	0.00		23.50	21.76
206+25.00		121.00			0.00			23.00		
	25.00		127.00	117.59		0.00	0.00		23.50	21.76
206+50.00		133.00			0.00			24.00		
	15.00		73.00	40.56		12.50	6.94		27.50	15.28
206+65.00		13.00			25.00			31.00		
	10.00		12.50	4.63		20.50	7.59		31.00	11.48
206+75.00		12.00			16.00			31.00		
	25.00		25.00	23.15		8.50	7.87		27.00	25.00
207+00.00		38.00			1.00			23.00		
	25.00		42.50	39.35		4.50	4.17		11.50	10.65
207+25.00		47.00			8.00			0.00		
	10.00		27.50	10.19		19.00	7.04		13.00	4.81
207+35.00		8.00			30.00			26.00		
	15.00		17.00	9.44		16.00	8.89		27.00	15.00
207+50.00		26.00			2.00			28.00		
	25.00		108.50	100.46		1.00	0.93		28.50	26.39
207+75.00		191.00			0.00			29.00		
	25.00		200.00	185.19		0.00	0.00		29.50	27.31
208+00.00		209.00			0.00			30.00		
	25.00		225.50	208.80		0.00	0.00		31.00	28.70
208+25.00		242.00			0.00			32.00		
	25.00		247.50	229.17		0.00	0.00		32.50	30.09
208+50.00		253.00			0.00			33.00		
	25.00		238.00	220.37		0.00	0.00		32.00	29.63
208+75.00		223.00			0.00			31.00		
	25.00		213.50	197.69		0.00	0.00		30.50	28.24
209+00.00		204.00			0.00			30.00		
	25.00		199.50	184.72		0.00	0.00		29.50	27.31
209+25.00		195.00			0.00			29.00		
	25.00		193.50	179.17		0.00	0.00		28.50	26.39
209+50.00		192.00			0.00			28.00		
	25.00		192.00	177.78		0.00	0.00		27.50	25.46
209+75.00		192.00			0.00			27.00		
	25.00		185.00	171.30		0.00	0.00		27.00	25.00

CRYSTAL CREEK EARTHWORK SCHEDULE										
STA.	DIST. (FT)	EARTH EXCAVATION			FURNISHED EMBANKMENT			TOPSOIL PLACEMENT		
		AREA (SF)	AVE. AREA (SF)	VOLUME (CY)	AREA (SF)	AVE. AREA (SF)	VOLUME (CY)	AREA (SF)	AVE. AREA (SF)	VOLUME (CY)
210+00.00		178.00			0.00			27.00		
	25.00		171.00	158.33		0.00	0.00		26.00	24.07
210+25.00		164.00			0.00			25.00		
	25.00		165.50	153.24		0.00	0.00		25.50	23.61
210+50.00		167.00			0.00			26.00		
	10.00		165.00	61.11		0.00	0.00		25.50	9.44
210+60.00		163.00			0.00			25.00		
	15.00		95.00	52.78		10.00	5.56		24.00	13.33
210+75.00		27.00			20.00			23.00		
	25.00		57.00	52.78		10.00	9.26		11.50	10.65
211+00.00		87.00			0.00			0.00		
	20.00		64.00	47.41		30.00	22.22		27.00	20.00
211+20.00		41.00			60.00			54.00		
	10.00		112.50	41.67		30.00	11.11		45.00	16.67
211+30.00		184.00			0.00			36.00		
	20.00		152.50	112.96		0.00	0.00		27.50	20.37
211+50.00		121.00			0.00			19.00		
	25.00		111.00	102.78		0.00	0.00		16.50	15.28
211+75.00		101.00			0.00			14.00		
	25.00		99.50	92.13		0.00	0.00		13.50	12.50
212+00.00		98.00			0.00			13.00		
	25.00		108.50	100.46		0.00	0.00		14.00	12.96
212+25.00		119.00			0.00			15.00		
	25.00		118.50	109.72		0.00	0.00		15.50	14.35
212+50.00		118.00			0.00			16.00		
	15.00		123.00	68.33		0.00	0.00		16.50	9.17
212+65.00		128.00			0.00			17.00		
	15.00		68.00	37.78		8.00	4.44		27.50	15.28
212+80.00		8.00			16.00			38.00		
	20.00		41.50	30.74		8.00	5.93		19.00	14.07
213+00.00		75.00			0.00			0.00		
	25.00		39.00	36.11		59.00	54.63		8.00	7.41
213+25.00		3.00			118.00			16.00		
	15.00		8.00	4.44		59.00	32.78		23.00	12.78
213+40.00		13.00			0.00			30.00		
	15.00		161.50	89.72		0.00	0.00		30.00	16.67
213+55.00		310.00			0.00			30.00		
	20.00		338.00	250.37		0.00	0.00		31.50	23.33
213+75.00		366.00			0.00			33.00		
	25.00		395.50	366.20		0.00	0.00		35.50	32.87
214+00.00		425.00			0.00			38.00		
	25.00		408.00	377.78		0.00	0.00		36.50	33.80
214+25.00		391.00			0.00			35.00		
	25.00		366.00	338.89		0.00	0.00		33.50	31.02
214+50.00		341.00			0.00			32.00		
	25.00		318.50	294.91		0.00	0.00		31.00	28.70
214+75.00		296.00			0.00			30.00		
	25.00		281.50	260.65		0.00	0.00		29.00	26.85
215+00.00		267.00			0.00			28.00		
	25.00		259.00	239.81		0.00	0.00		27.50	25.46
215+25.00		251.00			0.00			27.00		
	25.00		241.50	223.61		0.00	0.00		26.50	24.54
215+50.00		232.00			0.00			26.00		
	25.00		226.50	209.72		0.00	0.00		25.50	23.61
215+75.00		221.00			0.00			25.00		
	25.00		217.00	200.93		0.00	0.00		24.50	22.69
216+00.00		213.00			0.00			24.00		
	25.00		208.00	192.59		0.00	0.00		23.00	21.30
216+25.00		203.00			0.00			22.00		
	25.00		200.00	185.19		0.00	0.00		22.00	20.37
216+50.00		197.00			0.00			22.00		
	25.00		195.00	180.56		0.00	0.00		22.00	20.37
216+75.00		193.00			0.00			22.00		
	25.00		197.00	182.41		0.00	0.00		22.50	20.83
217+00.00		201.00			0.00			23.00		
	25.00		198.00	183.33		0.00	0.00		22.50	20.83
217+25.00		195.00			0.00			22.00		
	25.00		195.00	180.56		0.00	0.00		22.00	20.37
217+50.00		195.00			0.00			22.00		
	25.00		202.00	187.04		0.00	0.00		22.50	20.83
217+75.00		209.00			0.00			23.00		
	25.00		214.50	198.61		0.00	0.00		23.50	21.76
218+00.00		220.00			0.00			24.00		
	25.00		222.50	206.02		0.00	0.00		24.00	22.22
218+25.00		225.00			0.00			24.00		
	25.00		230.00	212.96		0.00	0.00		24.00	22.22
218+50.00		235.00			0.00			24.00		
	25.00		233.50	216.20		0.00	0.00		23.50	21.76
218+75.00		232.00			0.00			23.00		
	25.00		125.00	115.74		0.50	0.46		32.50	30.09
219+00.00		18.00			1.00			42.00		
	25.00		31.50	29.17		0.50	0.46		27.50	25.46
219+25.00		45.00			0.00			13.00		
	30.00		56.00	62.22		0.00	0.00		6.50	7.22
219+55.00		67.00			0.00			0.00		
	20.00		33.50	24.81		0.00	0.00		0.00	0.00
219+75.00		0.00			0.00			0.00		
		TOTAL = 11,474.98			TOTAL = 654.91			TOTAL = 1,835.70		

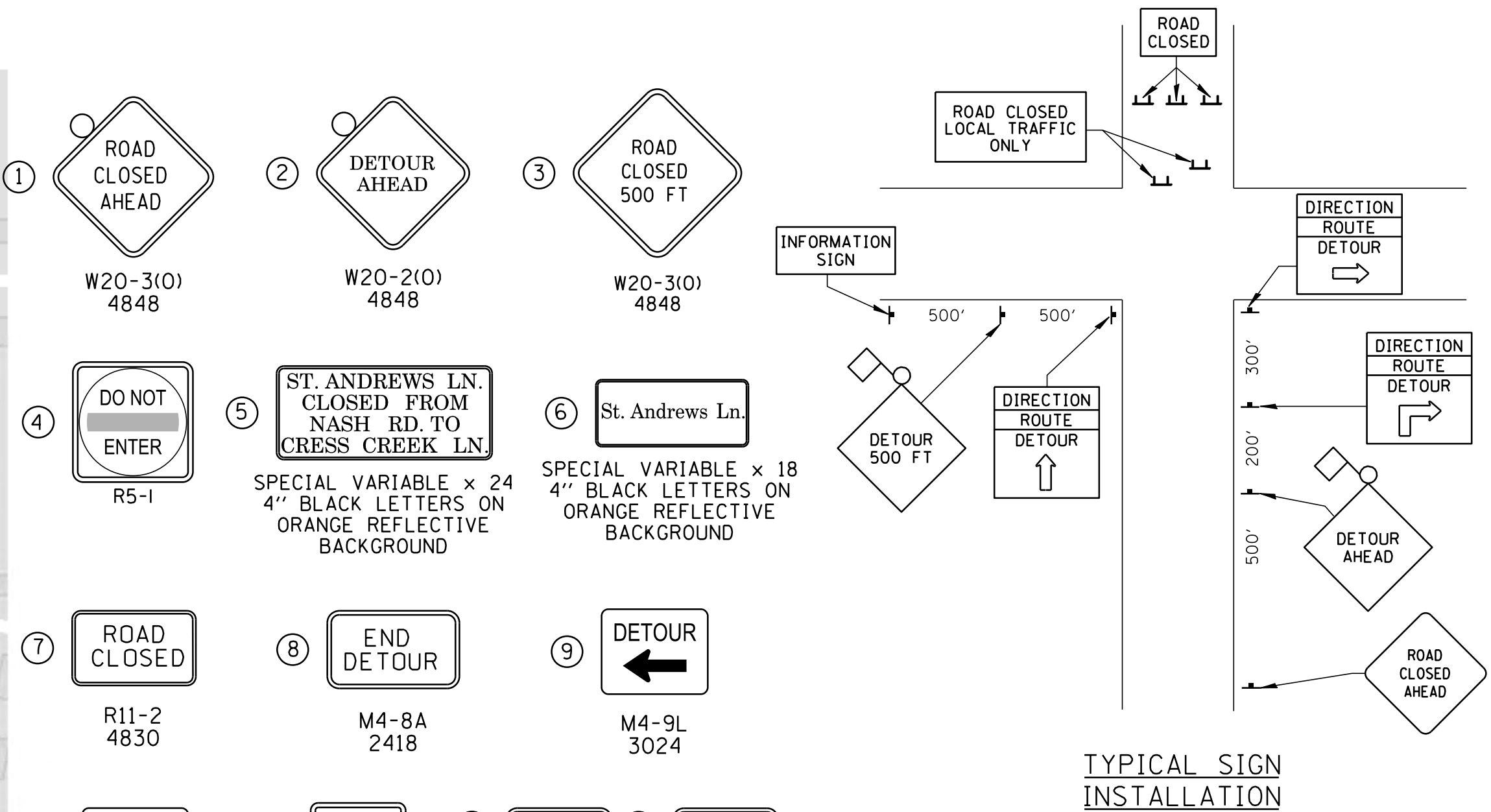
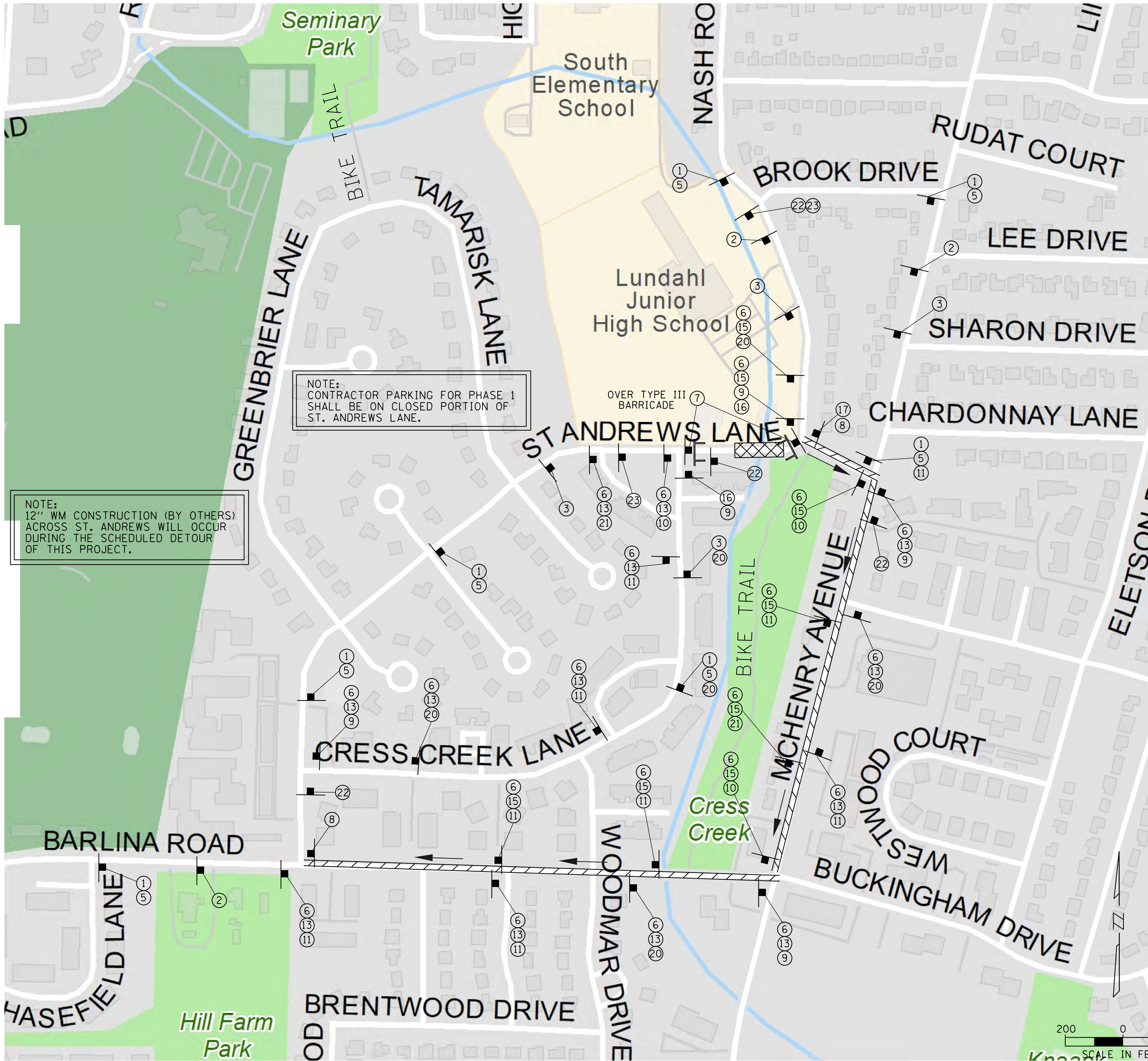


LEGEND	
EXISTING	PROPOSED
(A) EXISTING HOT-MIX ASPHALT PAVEMENT	(1) HMA SURFACE COURSE, MIX "D", N50, 1 1/2"
(B) EXISTING AGGREGATE BASE COURSE	(2) HMA BINDER COURSE, IL-19.0, N50, 2 1/4"
(C) EXISTING DRIVEWAY	(3) AGGREGATE BASE COURSE, TYPE B, 12"
(D) EXISTING CURB AND GUTTER	(4) AGGREGATE BASE COURSE, TYPE B, 4" (INCIDENTAL)
(E) EXISTING TOPSOIL AND SOD	(5) AGGREGATE BASE COURSE, TYPE B, 2" (INCIDENTAL)
(F) EXISTING PCC SIDEWALK	(6) BITUMINOUS MATERIALS (TACK COAT)
(H) PAVEMENT REMOVAL	(7) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
(I) COMBINATION CURB AND GUTTER REMOVAL**	(8) PCC SIDEWALK, 5 INCH (6 INCH @ DRIVEWAYS)
(J) DRIVEWAY PAVEMENT REMOVAL**	(9) DRIVEWAY PAVEMENT (INCLUDES PCC/HMA/ AND REQ'D AGGREGATE)
(K) SIDEWALK REMOVAL**	(10) TRENCH BACKFILL FROM UTILITY INSTALLATION
(L) EXCAVATION FOR UTILITY INSTALLATION	(11) TOPSOIL PLACEMENT, 6"
(M) EARTH EXCAVATION	(12) STRIP REFLECTIVE CRACK CONTROL TREATMENT
(N) REMOVAL AND DISPOSAL OF UNSUITABLE MAT.**	(13) GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
(O) TOPSOIL STRIPPING, 6"	(14) AGGREGATE SUBGRADE IMPROVEMENT, 12"
(Hatched) ITEM TO BE REMOVED	(15) CLASS D PATCH, SPECIAL, 9"
** AS DETERMINED BY THE ENGINEER (EARTH EXCAVATION INCIDENTAL TO CURB AND GUTTER REMOVAL)	

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS
PAVEMENT RECONSTRUCTION	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL 9.5, N50, 1 1/2"	4% @ 50 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 2 1/4"	4% @ 50 GYR
CLASS D PATCHING	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL 9.5, N50, 3"	4% @ 50 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 6" (2 LIFTS)	4% @ 50 GYR
DRIVEWAY PAVEMENT	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL 9.5, N50, 3"	4% @ 50 GYR

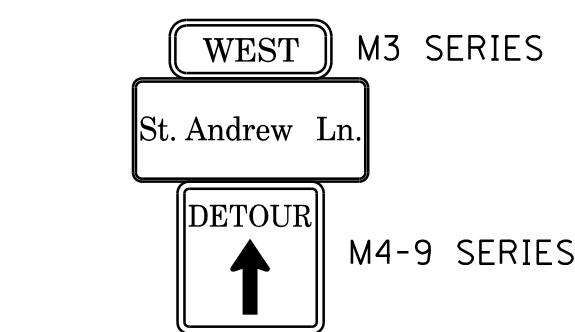
- NOTES:
- THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.
 - THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.
 - FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.
 - ALL UNDERCUTTING SHALL BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL.

UTILITY MATRIX		DATE SENT TO UTILITY COMPANY	RESPONSE DATE	COMMENTS
AT&T (DISTRIBUTION) 1000 COMMERCE DRIVE, FLOOR 1 OAK BROOK, IL 60523 ATTN: JAMEL MCGINNIS EMAIL: g11629@att.com EMAIL: jm548w@att.com		8 / 3 / 2023 11 / 21 / 2023	8 / 11 / 2023	RELOCATIONS REQUIRED (STA. 200 + 10 ; 213 + 25 ; 214 + 40)
COMCAST 688 INDUSTRIAL DRIVE ELMHURST, IL 60126 ATTN: MARTHA GIERAS EMAIL: martha_gieras@cable.comcast.com PH: 224-229-5862		8 / 3 / 2023 11 / 21 / 2023	8 / 15 / 2023	RELOCATIONS REQUIRED (STA. 200 + 10 ; 213 + 25)
COMMONWEALTH EDISON ELECTRONIC PLAN SUBMITTAL PlanSubmittalsAndMapRequests@exeloncorp.com ATTN: LISA ARGAST EMAIL: lisa.mavity@ComEd.com PH: 630-576-7094		8 / 3 / 2023 11 / 21 / 2023	8 / 10 / 2023	RELOCATIONS REQUIRED (STA. 200 + 70 ; 213 + 25 ; 214 + 40)
VILLAGE OF LAKEWOOD 2500 LAKE AVENUE LAKEWOOD, IL 60014 ATTN: GARY ZICKUHR EMAIL: gzickuhr@village.lakewood.il.us PH: 815-459-3025		8 / 3 / 2023 9 / 25 / 2023 11 / 21 / 2023		
MCI-VERIZON BUSINESS ATTN: ASG-INVESTIGATIONS-TEAM EMAIL: ASG.InvestigationsTeam@ASGinc.us		8 / 3 / 2023 11 / 21 / 2023	8 / 10 / 2023	NO CONFLICTS ANTICIPATED (NOT IN AREA)
NICOR GAS 1844 FERRY ROAD NAPERVILLE, IL 60563 ATTN: SAKIBUL FORAH PH: 630-388-2903 EMAIL: gasmaps@southernco.com EMAIL: gasmaps@agresources.com		8 / 3 / 2023 11 / 21 / 2023	9 / 6 / 2023	NICOR ENGINEER IN PROCESS OF ANALYZING (RELOCATIONS REQUIRED)

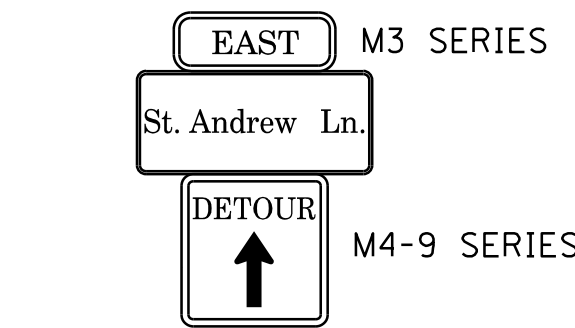


- LEGEND**
- 48" x 48" CONSTRUCTION WARNING SIGN WITH AMBER FLASHING LIGHT AND ORANGE WARNING FLAG. NUMBER DENOTES TYPE.
 - M4-9 SERIES DETOUR SIGN WITH ROAD NAME AND CARDINAL DIRECTION PLATE. NUMBER DENOTES TYPE.
 - OTHER DETOUR SIGNS. NUMBER DENOTES TYPE.
 - TYPE III BARRICADE WITH AMBER FLASHING LIGHTS.
 - ST. ANDREW LN. DETOUR ROUTE
 - WORK ZONE
- SCHEDULE OF SIGNS**
- 1 ROAD CLOSED AHEAD W20-3(O) 4848
 - 2 DETOUR AHEAD W20-2(O) 4848
 - 3 ROAD CLOSED 500 FT W20-3(O) 4848
 - 4 DO NOT ENTER R5-1
 - 5 ST. ANDREWS LN. CLOSED FROM NASH RD. TO CRESS CREEK LN. SPECIAL VARIABLE x 24 4" BLACK LETTERS ON ORANGE REFLECTIVE BACKGROUND
 - 6 St. Andrews Ln. SPECIAL VARIABLE x 18 4" BLACK LETTERS ON ORANGE REFLECTIVE BACKGROUND
 - 7 ROAD CLOSED R11-2 4830
 - 8 END DETOUR M4-8A 2418
 - 9 DETOUR M4-9L 3024
 - 10 DETOUR M4-9R 3024
 - 11 DETOUR M4-9 3024
 - 12 NORTH M3-3(O) 2412
 - 13 EAST M3-2(O) 2412
 - 14 SOUTH M3-1(O) 2412
 - 15 WEST M3-4(O) 2412
 - 16 R3-1 2424
 - 17 R3-2 2424
 - 18 DETOUR M4-10R 4818
 - 19 DETOUR M4-10L 4818
 - 20 DETOUR M4-9UL 3024
 - 21 DETOUR M4-9UR 3024
 - 22 CHANGEABLE MESSAGE SIGN, SPECIAL (ONLY 2 WEEKS PRIOR TO CONSTRUCTION)
 - 23 CHANGEABLE MESSAGE SIGN, SPECIAL (DURATION OF CONSTRUCTION)

SCHEDULE OF SIGNS



DETAIL FOR TYPICAL
DETOUR SIGN ASSEMBLY



DETAIL FOR TYPICAL
DETOUR SIGN ASSEMBLY

**MAINTENANCE OF TRAFFIC
GENERAL NOTES**

1. ALL SIGNAGE TO BE IN ACCORDANCE WITH MUTCD. SUGGESTED MAINTENANCE OF TRAFFIC SHOWN. IS MINIMUM REQUIRED. CONTRACTOR SHALL PROVIDE ADDITIONAL TRAFFIC CONTROL MEASURES AS DIRECTED BY RESIDENT ENGINEER. THIS WORK WILL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, SPECIAL.
2. DETOUR OF ST. ANDREW LANE. TRAFFIC WILL REMAIN THROUGH THE COMPLETION OF ST. ANDREWS LANE. ST. ANDREWS LANE. LOCAL TRAFFIC MUST BE ROUTED AROUND THE CONSTRUCTION ZONE PER THE DETOUR ROUTE AND ROAD CLOSED SIGNS. THE CONTRACTOR IS REQUIRED TO NOTIFY AND DIRECT RESIDENTS AND NECESSARY TRAFFIC (GARBAGE, EMERGENCY, SCHOOL AND PACE BUSES) THROUGH OR AROUND THE WORK ZONE ON A DAILY BASIS.
3. THIS TRAFFIC PLAN SHOWS ONLY THE MINIMUM SIGNAGE REQUIRED FOR THE PERMANENT DETOUR. LOCAL DETOURS AND SIGNS REQUIRED FOR SAFETY ARE NOT SHOWN HERE.
4. ADVANCED WARNING CHANGEABLE MESSAGE BOARDS SHALL BE POSTED AT BOTH ENDS OF THE ROADWAY 2 WEEKS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WITHIN THE CITY'S RIGHT-OF-WAY NOTIFYING THE MOTORING PUBLIC OF THE UPCOMING WORK (ROAD CONSTRUCTION BEGINNING MAY 6TH, 2024 TO AUGUST 1ST, 2024 EXPECT DELAYS, SEEK ALTERNATE ROUTES, ROAD CLOSED TO ALL TRAFFIC, ETC.). THE LANGUAGE MUST BE PROVIDED TO THE CITY FOR REVIEW/ APPROVAL PRIOR TO THEIR ACTIVATION. THE MESSAGE BOARD LOCATION SHALL BE REVIEWED AND APPROVED BY THE CITY PRIOR TO PLACEMENT. THIS SHALL BE PAID FOR AS CHANGEABLE MESSAGE SIGN.

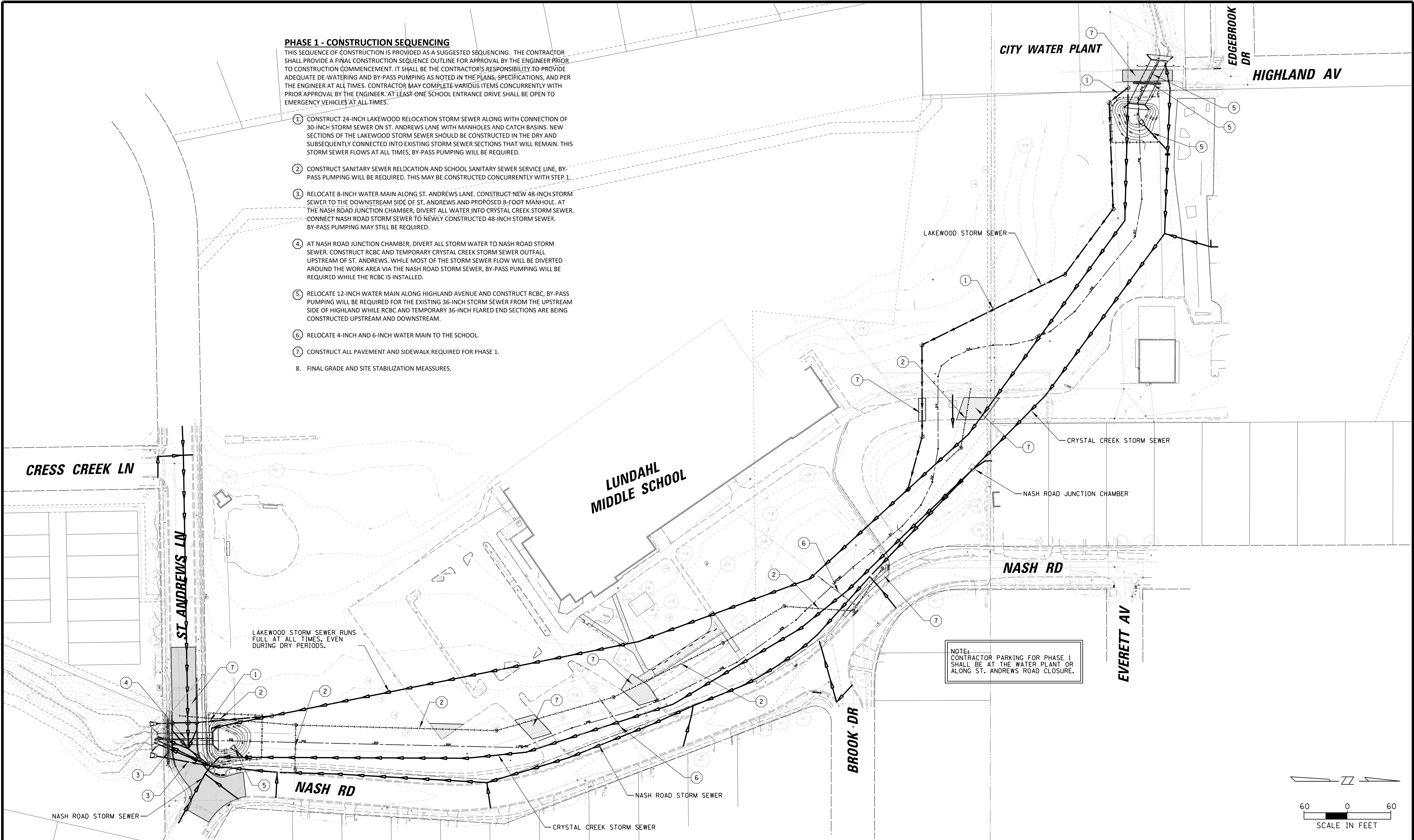


DSGN.	JAL	DTG
DWN.	MAK	
CHKD.	JGS	WJS
SCALE:	200'	
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MODEL:	Default	
NO.	DATE	NATURE OF REVISION
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PHASE 1 - CONSTRUCTION SEQUENCING

THIS SEQUENCE OF CONSTRUCTION IS PROVIDED AS A SUGGESTED SEQUENCING. THE CONTRACTOR SHALL PROVIDE A FINAL CONSTRUCTION SEQUENCE OUTLINE FOR APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION COMMENCEMENT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE DE-WATERING AND BY-PASS PUMPING AS NOTED IN THE PLANS, SPECIFICATIONS, AND PER THE ENGINEER AT ALL TIMES. CONTRACTOR MAY COMPLETE VARIOUS ITEMS CONCURRENTLY WITH PRIOR APPROVAL BY THE ENGINEER. AT LEAST ONE SCHOOL ENTRANCE DRIVE SHALL BE OPEN TO EMERGENCY VEHICLES AT ALL TIMES.

1. CONSTRUCT 24-INCH LAKEWOOD RELOCATION STORM SEWER ALONG WITH CONNECTION OF 30-INCH STORM SEWER ON ST. ANDREWS LANE WITH MANHOLES AND CATCH BASINS. NEW SECTIONS OF THE LAKEWOOD STORM SEWER SHOULD BE CONSTRUCTED IN THE DRY AND SUBSEQUENTLY CONNECTED INTO EXISTING STORM SEWER SECTIONS THAT WILL REMAIN. THIS STORM SEWER FLOWS AT ALL TIMES, BY-PASS PUMPING WILL BE REQUIRED.
2. CONSTRUCT SANITARY SEWER RELOCATION AND SCHOOL SANITARY SEWER SERVICE LINE, BY-PASS PUMPING WILL BE REQUIRED. THIS MAY BE CONSTRUCTED CONCURRENTLY WITH STEP 1.
3. RELOCATE 8-INCH WATER MAIN ALONG ST. ANDREWS LANE. CONSTRUCT NEW 48-INCH STORM SEWER TO THE DOWNSTREAM SIDE OF ST. ANDREWS AND PROPOSED 8-FOOT MANHOLE. AT THE NASH ROAD JUNCTION CHAMBER, DIVERT ALL WATER INTO CRYSTAL CREEK STORM SEWER. CONNECT NASH ROAD STORM SEWER TO NEWLY CONSTRUCTED 48-INCH STORM SEWER. BY-PASS PUMPING MAY STILL BE REQUIRED.
4. AT NASH ROAD JUNCTION CHAMBER, DIVERT ALL STORM WATER TO NASH ROAD STORM SEWER. CONSTRUCT RCBC AND TEMPORARY CRYSTAL CREEK STORM SEWER OUTFALL UPSTREAM OF ST. ANDREWS. WHILE MOST OF THE STORM SEWER FLOW WILL BE DIVERTED AROUND THE WORK AREA VIA THE NASH ROAD STORM SEWER, BY-PASS PUMPING WILL BE REQUIRED WHILE THE RCBC IS INSTALLED.
5. RELOCATE 12-INCH WATER MAIN ALONG HIGHLAND AVENUE AND CONSTRUCT RCBC, BY-PASS PUMPING WILL BE REQUIRED FOR THE EXISTING 36-INCH STORM SEWER FROM THE UPSTREAM SIDE OF HIGHLAND WHILE RCBC AND TEMPORARY 36-INCH FLARED END SECTIONS ARE BEING CONSTRUCTED UPSTREAM AND DOWNSTREAM.
6. RELOCATE 4-INCH AND 6-INCH WATER MAIN TO THE SCHOOL.
7. CONSTRUCT ALL PAVEMENT AND SIDEWALK REQUIRED FOR PHASE 1.
8. FINAL GRADE AND SITE STABILIZATION MEASURES.



CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

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TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 1 RECOMMENDED MIN. MEASURES
FOR STAGING AND DEWATERING**

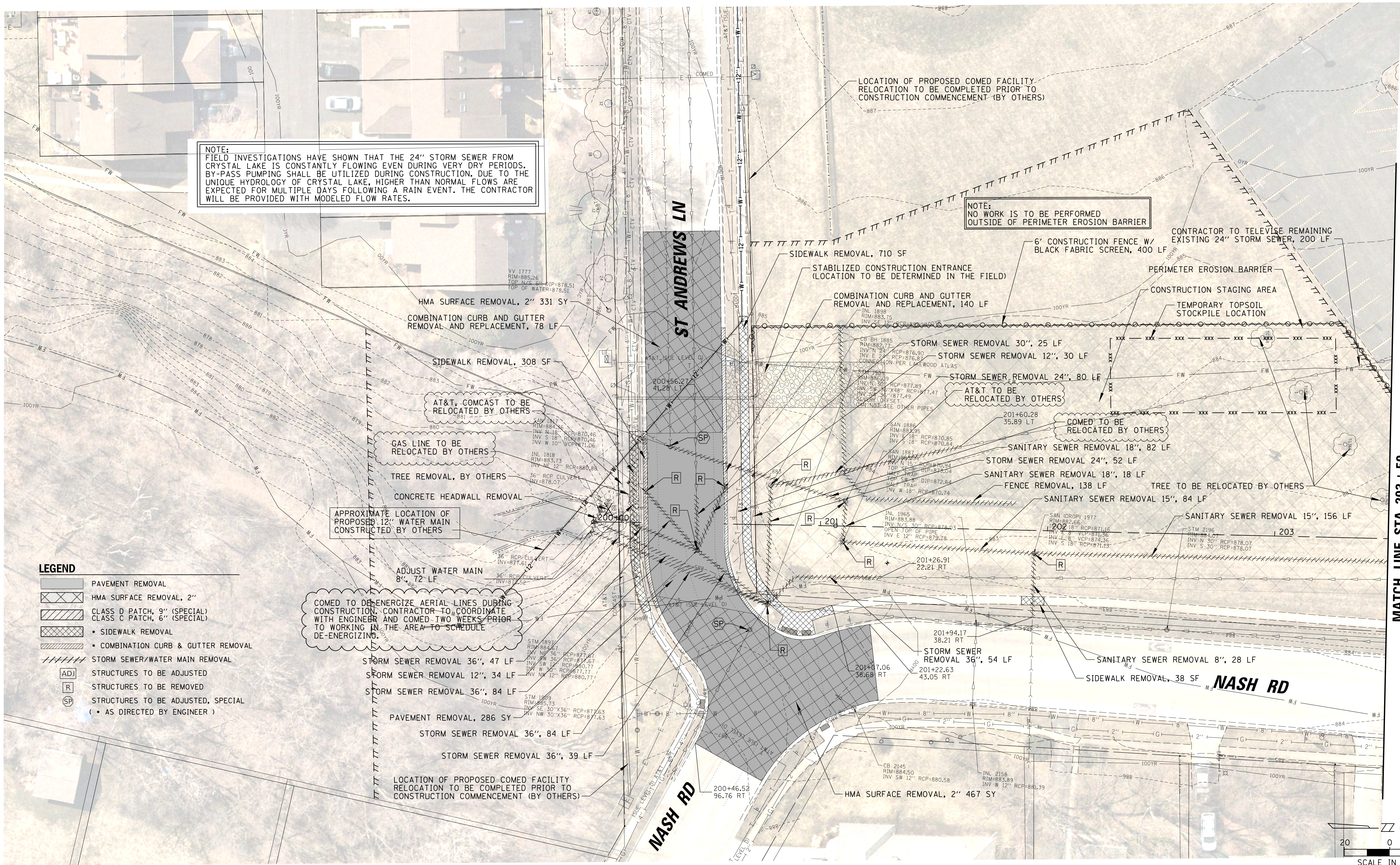
PROJ. NO. 08-0364.55B

DATE: 10/6/2025

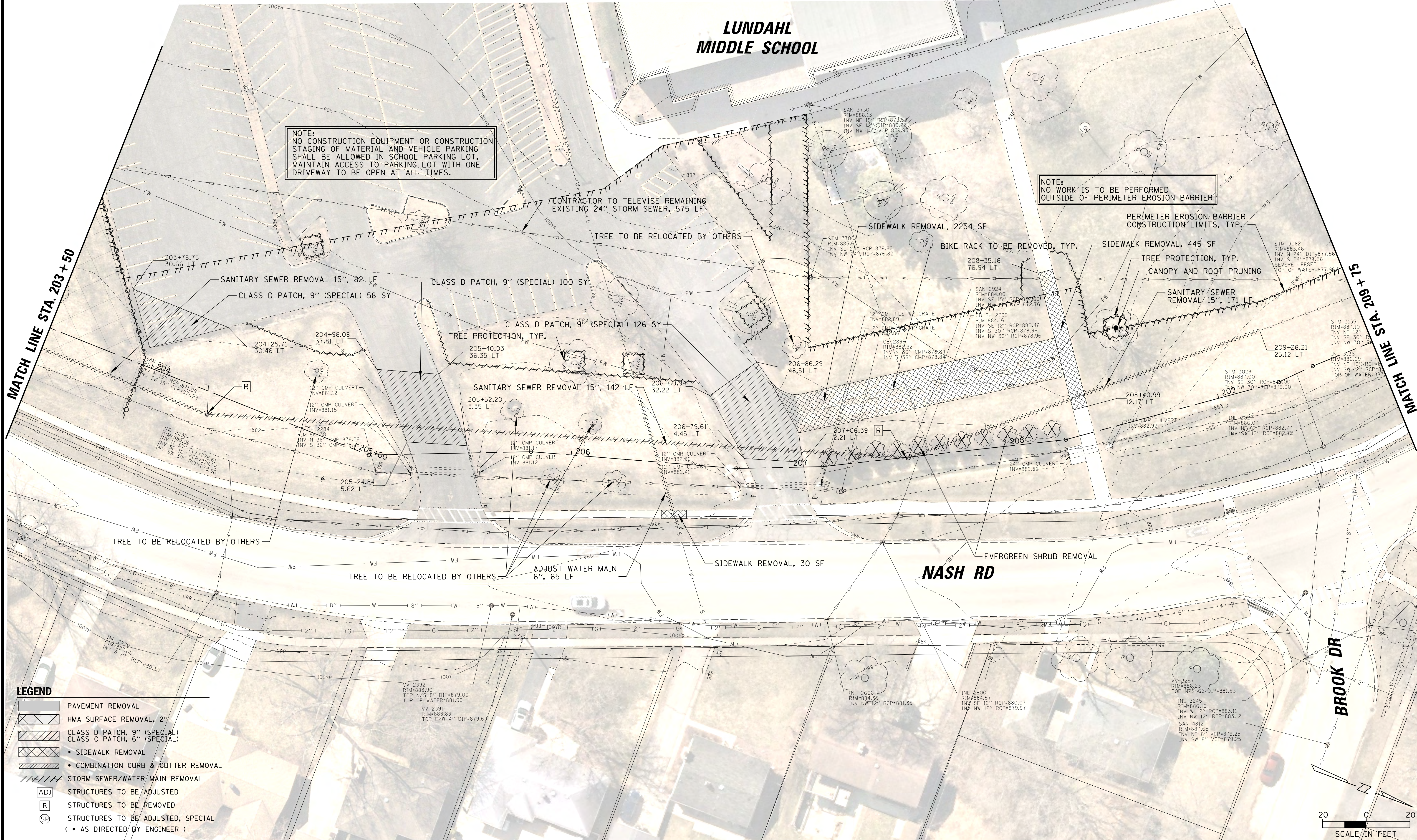
SHEET 9 OF 93

DRAWING NO.

9



NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
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2	10/6/2025	Revised Design	MAK	WJS
3	10/6/2025	Final Design	JGS	WJS
4	10/6/2025	Construction Documents	JGS	WJS
5	10/6/2025	As-Built	JGS	WJS
6	10/6/2025	Final	JGS	WJS
7	10/6/2025	Final	JGS	WJS
8	10/6/2025	Final	JGS	WJS
9	10/6/2025	Final	JGS	WJS
10	10/6/2025	Final	JGS	WJS



- LEGEND**
- PAVEMENT REMOVAL
 - HMA SURFACE REMOVAL, 2"
 - CLASS D PATCH, 9" (SPECIAL)
 - CLASS C PATCH, 6" (SPECIAL)
 - SIDEWALK REMOVAL
 - COMBINATION CURB & GUTTER REMOVAL
 - STORM SEWER/WATER MAIN REMOVAL
 - STRUCTURES TO BE ADJUSTED (AD)
 - STRUCTURES TO BE REMOVED (R)
 - STRUCTURES TO BE ADJUSTED, SPECIAL (SP)
 - (• AS DIRECTED BY ENGINEER)



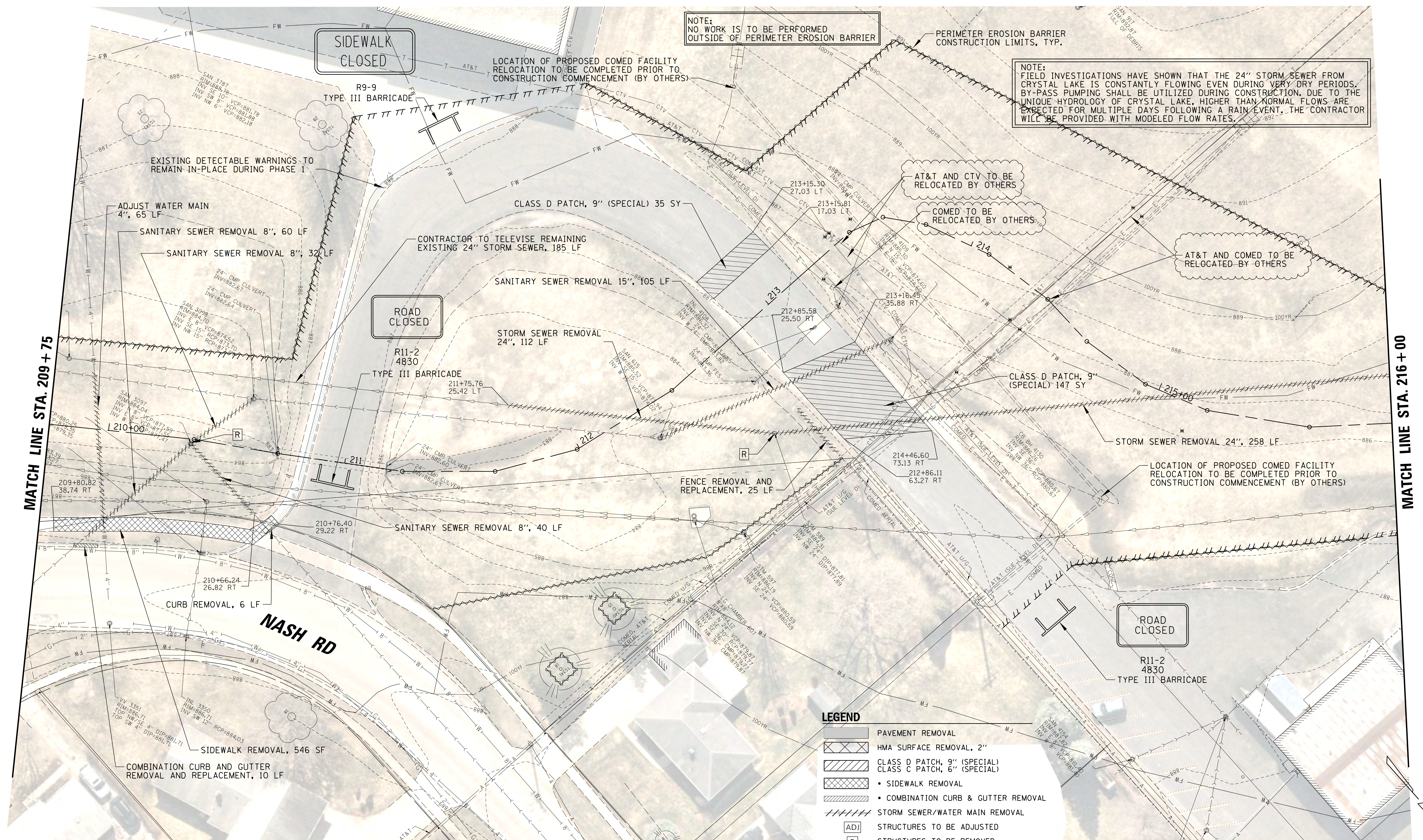
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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
1	10/6/2025	Initial Design	JAL	Default
2	10/6/2025	Revised Design	MAK	Default
3	10/6/2025	Final Design	JGS	Default
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5	10/6/2025	Final As Constructed	WJS	Default
6	10/6/2025	Final As Constructed	WJS	Default
7	10/6/2025	Final As Constructed	WJS	Default
8	10/6/2025	Final As Constructed	WJS	Default
9	10/6/2025	Final As Constructed	WJS	Default
10	10/6/2025	Final As Constructed	WJS	Default

TITLE:	CRYSTAL CREEK DAYLIGHTING PROJECT PHASE 1 EXISTING CONDITIONS AND REMOVAL PLAN
PROJ. NO.	08-0364.55B
DATE:	10/6/2025
SHEET	11 OF 93
DRAWING NO.	
	11



			DSGN.	JAL	DT0
			DWN.	MAK	
			CHKD.	JGS	WJS
			SCALE:	20'	
			PLOT DATE:	10/6/2025	
			CAD USER:	mkoance	
			MODEL:	Default	
NO.	DATE	NATURE OF REVISION	CHKD.		
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek Daylighting\Civil\PHI\REM_080364.00055.03.dgn				

	PAVEMENT REMOVAL
	HMA SURFACE REMOVAL, 2"
	CLASS D PATCH, 9" (SPECIAL)
	CLASS C PATCH, 6" (SPECIAL)
	• SIDEWALK REMOVAL
	• COMBINATION CURB & GUTTER REMOVAL
	STORM SEWER/WATER MAIN REMOVAL
	STRUCTURES TO BE ADJUSTED
	STRUCTURES TO BE REMOVED
	STRUCTURES TO BE ADJUSTED, SPECIAL (• AS DIRECTED BY ENGINEER)

NOTE: FIELD INVESTIGATIONS HAVE SHOWN THAT THE 24" STORM-SEWER³ FROM CRYSTAL LAKE IS CONSTANTLY FLOWING EVEN DURING VERY DRY PERIODS. BY-PASS PUMPING SHALL BE UTILIZED DURING CONSTRUCTION. DUE TO THE UNIQUE HYDROLOGY OF CRYSTAL LAKE, HIGHER THAN NORMAL FLOWS ARE EXPECTED FOR MULTIPLE DAYS FOLLOWING A RAIN EVENT. THE CONTRACTOR WILL BE PROVIDED WITH MODELED FLOW RATES.

NOTE:
NO WORK IS TO BE PERFORMED
OUTSIDE OF PERIMETER EROSION BARRIER

GAS MAIN TO BE
RELOCATED BY OTHERS -

SOCCER GOAL POST TO BE
RELOCATED TO LOCATIONS
DETERMINED IN THE FIELD
BY THE ENGINEER

STORM SEWER REMOVAL 24", 20 LF

6' CONSTRUCTION FENCE W/
BLACK FABRIC SCREEN, 275 LF

— CONSTRUCTION STAGING AREA —

ADJUST WATER MAIN
12", 40 LF

—GAS LINE TO BE
RELOCATED BY OTHERS

STORM SEWER REMOVAL 24", 165 LF

STORM SEWER REMOVAL 24". 108 LF

FENCE REMOVAL AND

TREE REMOVAL, BY OTHERS

FENCE REMOVAL AND

STORM SEWER REMOVAL 36", 94 LF-

FENCE REMOVAL, 8 LF -

FREE REMOVAL, BY OTHERS

TREE REMOVAL, BY OTHERS

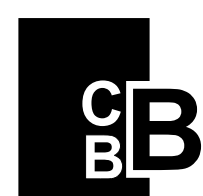
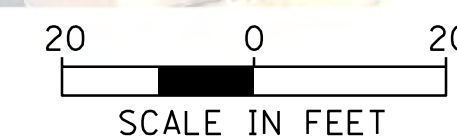
- SOCCER GOAL POST TO BE
RELOCATED TO LOCATIONS
DETERMINED IN THE FIELD
BY THE ENGINEER

PERIMETER EROSION BARRIER
CONSTRUCTION LIMITS, TYP.

CONTRACTOR TO EXPOSE EXISTING NORTHWEST
SANITARY SEWER PIPE TO DETERMINE ELEVATION
OF FUTURE CREEK CROSSING AS PART OF PHASE 2
WORK AND NOTIFY ENGINEER

EDGEBROOK DR

HIGHLAND



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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

				DSGN.	JAL	DTO
				DWN.	MAK	
				CHKD.	JGS	WJS
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				PLOT DATE:	10/6/2025	
				CAD USER:	mkoonce	
NO.	DATE	NATURE OF REVISION		CHKD.	MODEL:	Default
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TITLE:

CRYSTAL CREEK DAYLIGHTING PROJECT PHASE 1 EXISTING CONDITIONS AND REMOVAL PLAN

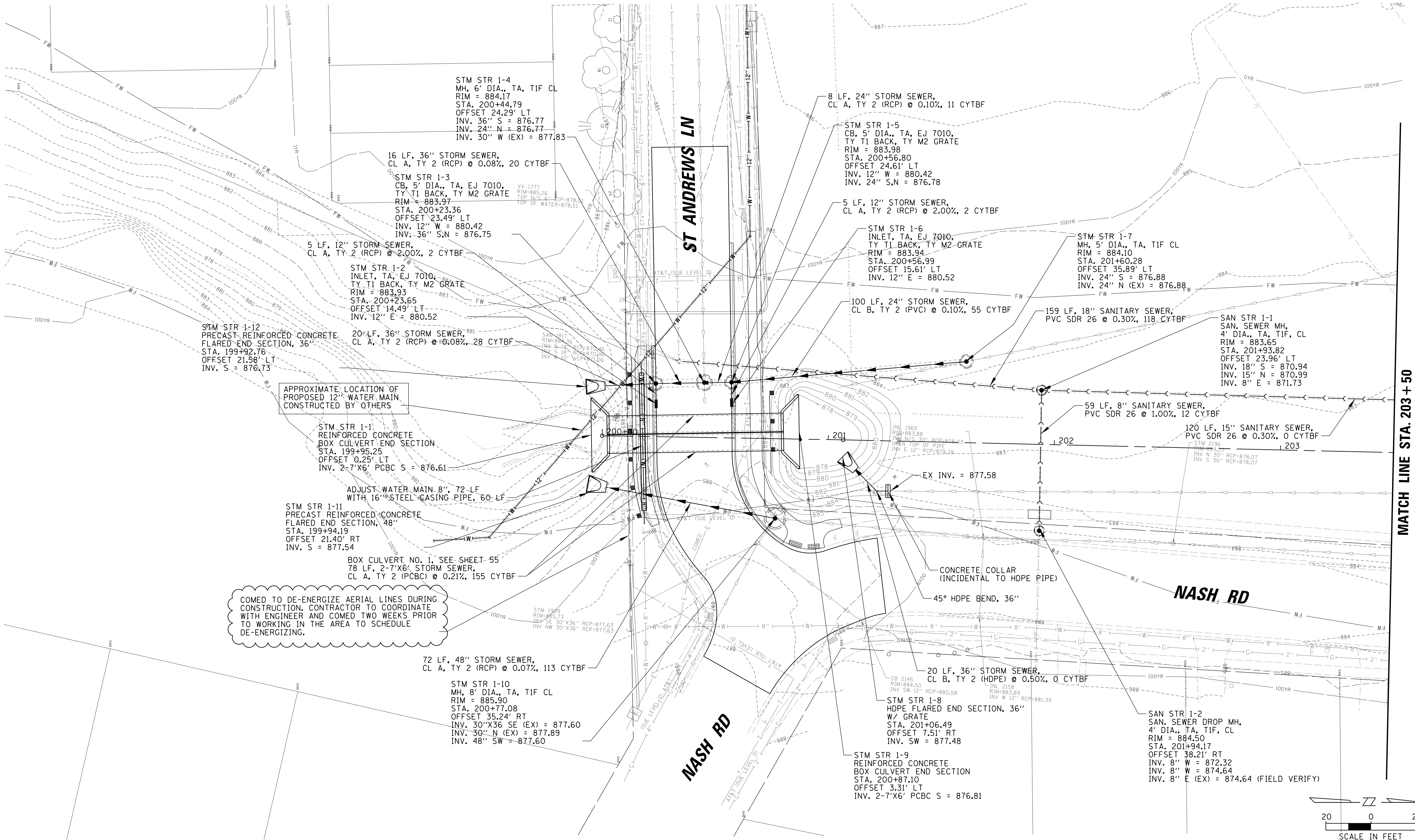
PROJ. NO. 08-0364.55B

DATE: 10/6/2025

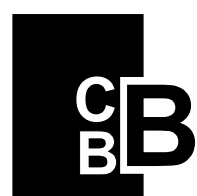
SHEET 13 OF 93

DRAWING NO.

13



MATCH LINE STA. 203+50



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CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
1	10/6/2025	Initial Design	JAL	Default
2	10/6/2025	Revised Design	MAK	Default
3	10/6/2025	Final Design	JGS	Default
4	10/6/2025	Plot Date	WJS	Default
5	10/6/2025	CAD User	mkoance	Default
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TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 1 PROPOSED
UTILITY PLAN**

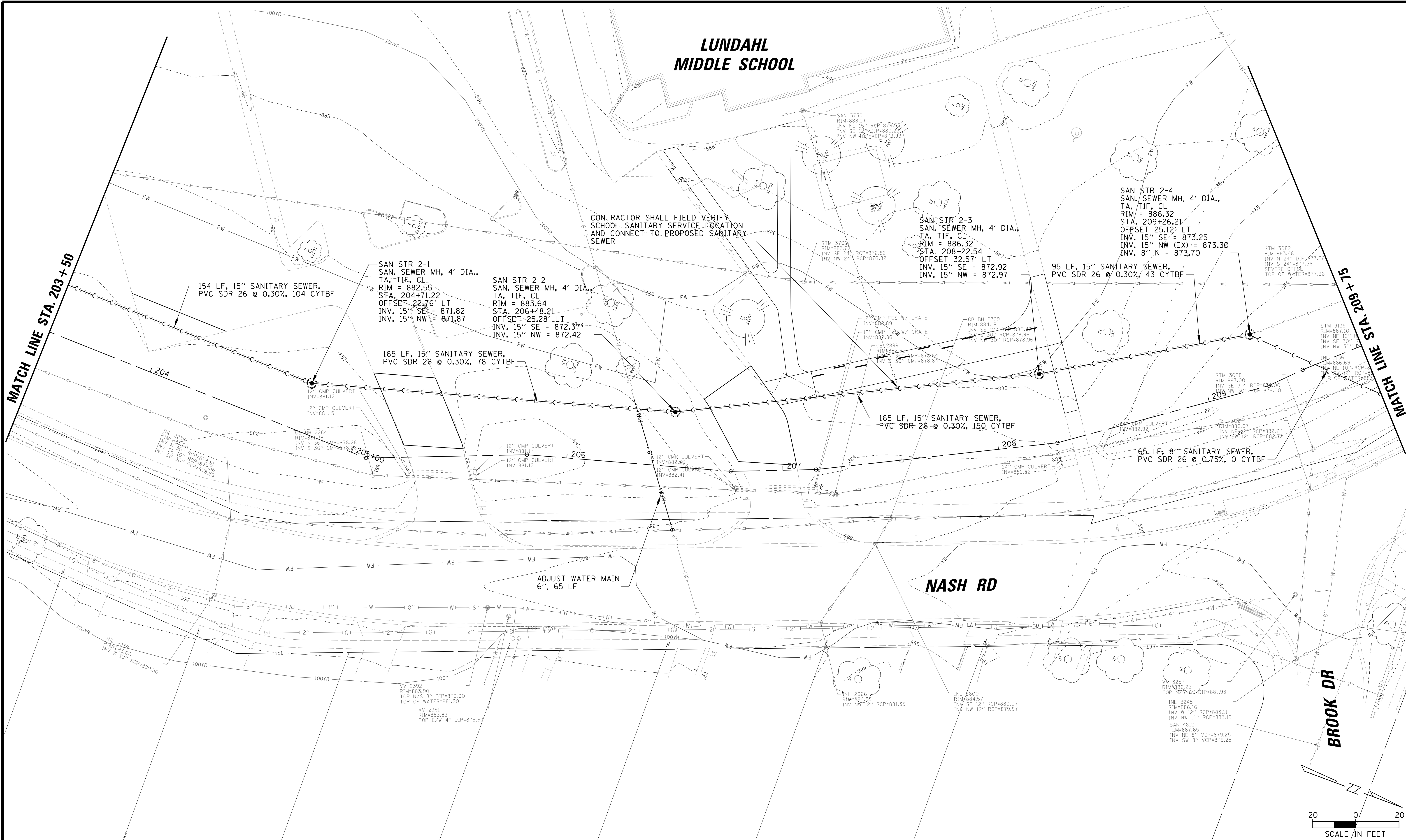
PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 14 OF 93

DRAWING NO.

14



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CITY OF CRYSTAL LAKE
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CRYSTAL LAKE, IL. 60014

			DSGN.	JAL	DT0
			DWN.	MAK	
			CHKD.	JGS	WJS
			SCALE:	20'	
			PLOT DATE:	10/6/2025	
			CAD USER:	mkoonce	
			MODEL:	Default	
NO.	DATE	NATURE OF REVISION	CHKD.		
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TITLE:

CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 1 PROPOSED
UTILITY PLAN

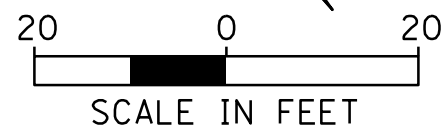
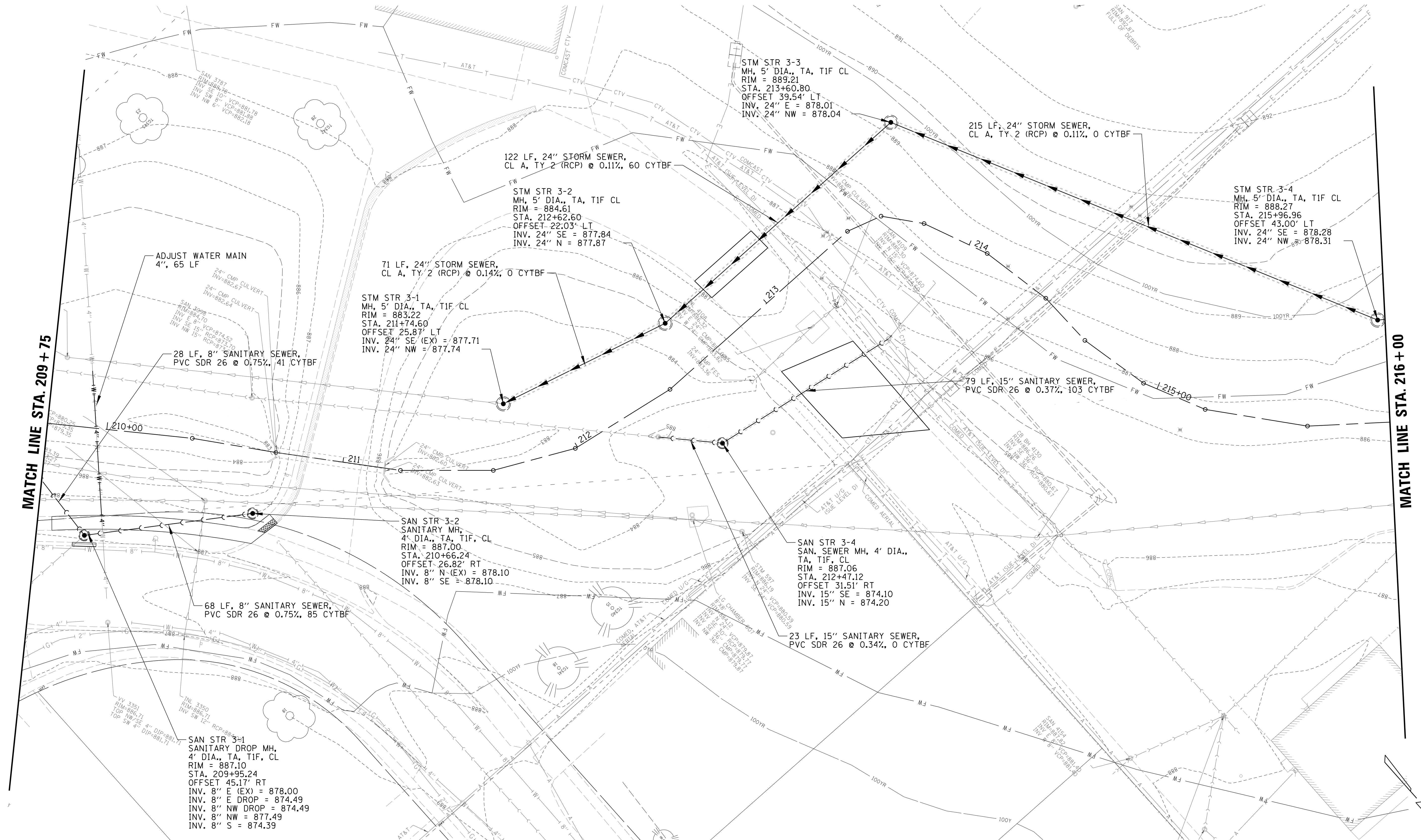
PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 15 OF 93

DRAWING NO.

15



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CITY OF CRYSTAL LAKE
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CRYSTAL LAKE, IL. 60014

				DSGN.	JAL	DT0
				DWN.	MAK	
				CHKD.	JGS	WJS
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NO.	DATE	NATURE OF REVISION			CHKD.	
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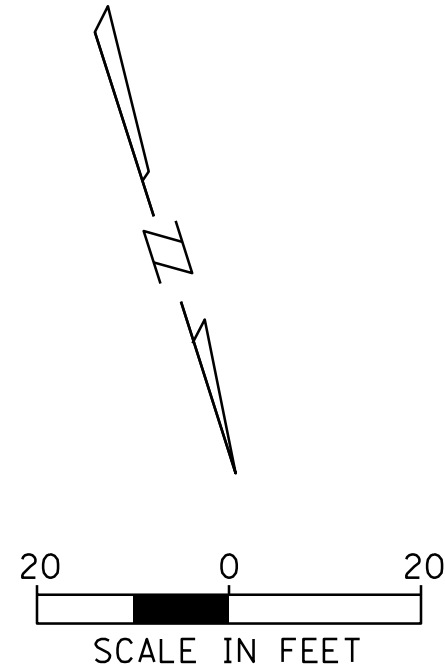
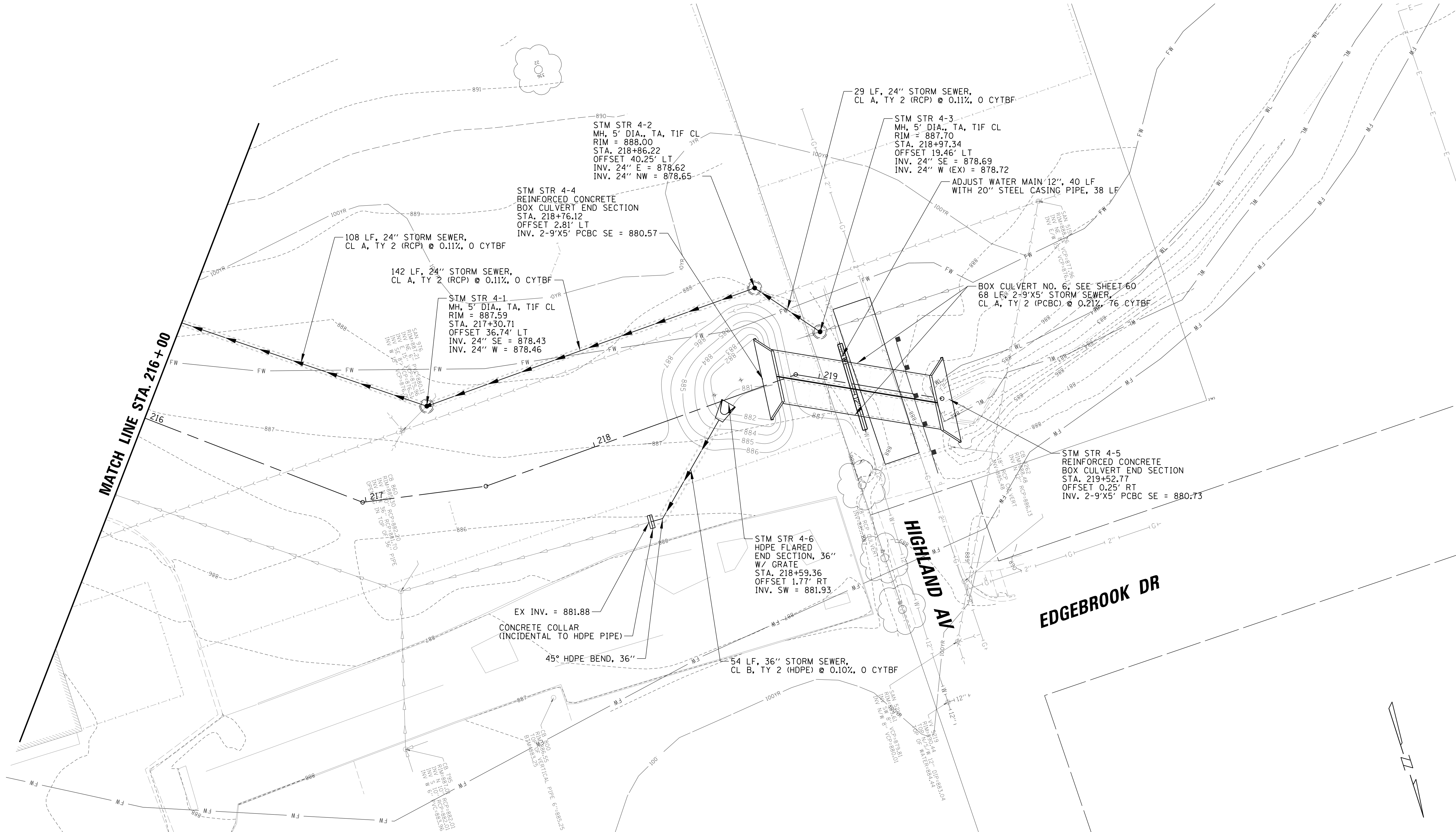
**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 1 PROPOSED
UTILITY PLAN**

PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 16 OF 93

DRAWING NO.



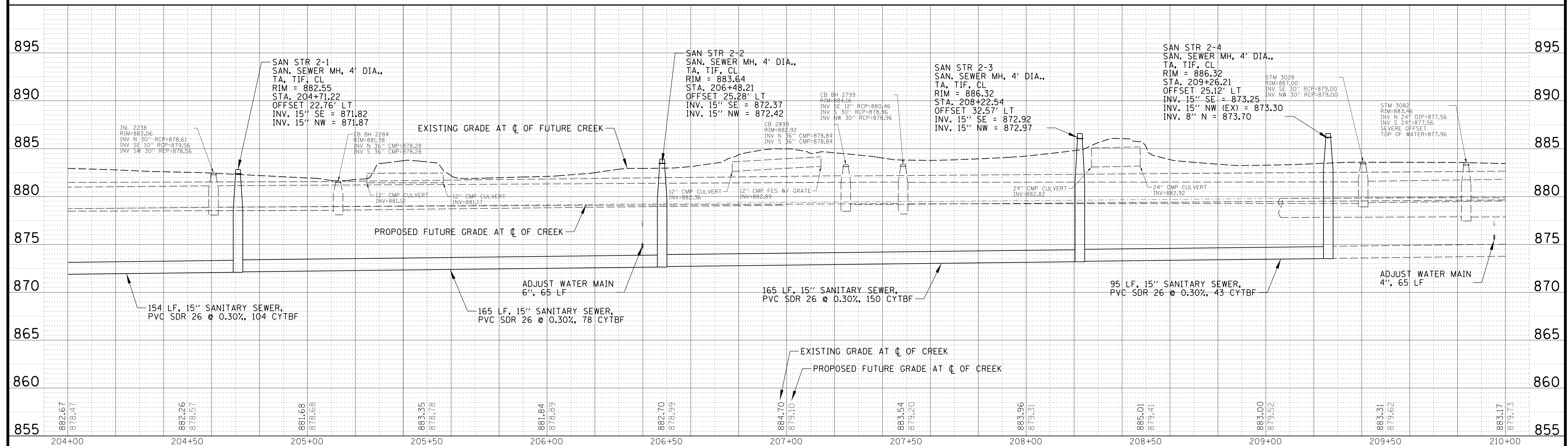
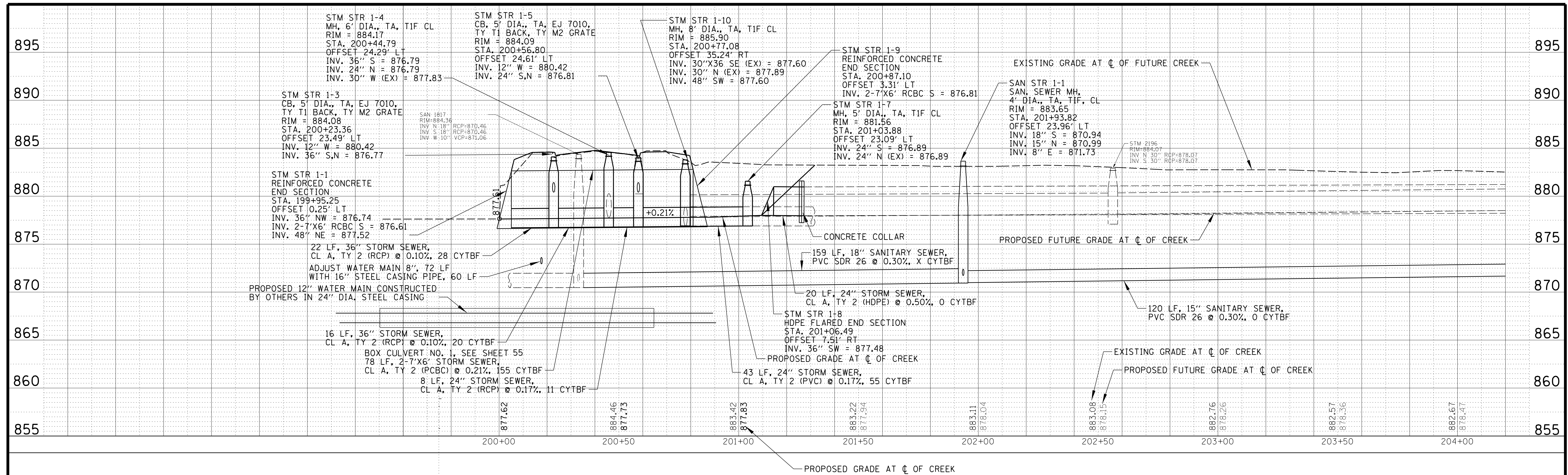
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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL
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TITLE:	CRYSTAL CREEK DAYLIGHTING PROJECT PHASE 1 PROPOSED UTILITY PLAN
PROJ. NO.	08-0364.55B
DATE:	10/6/2025
SHEET	17 OF 93
DRAWING NO.	17

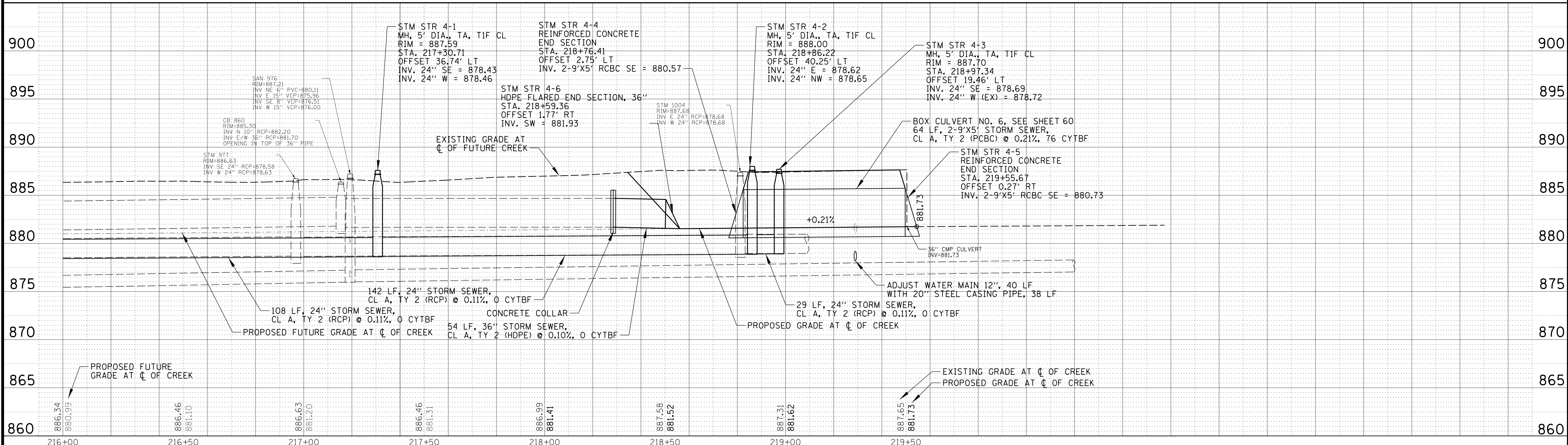
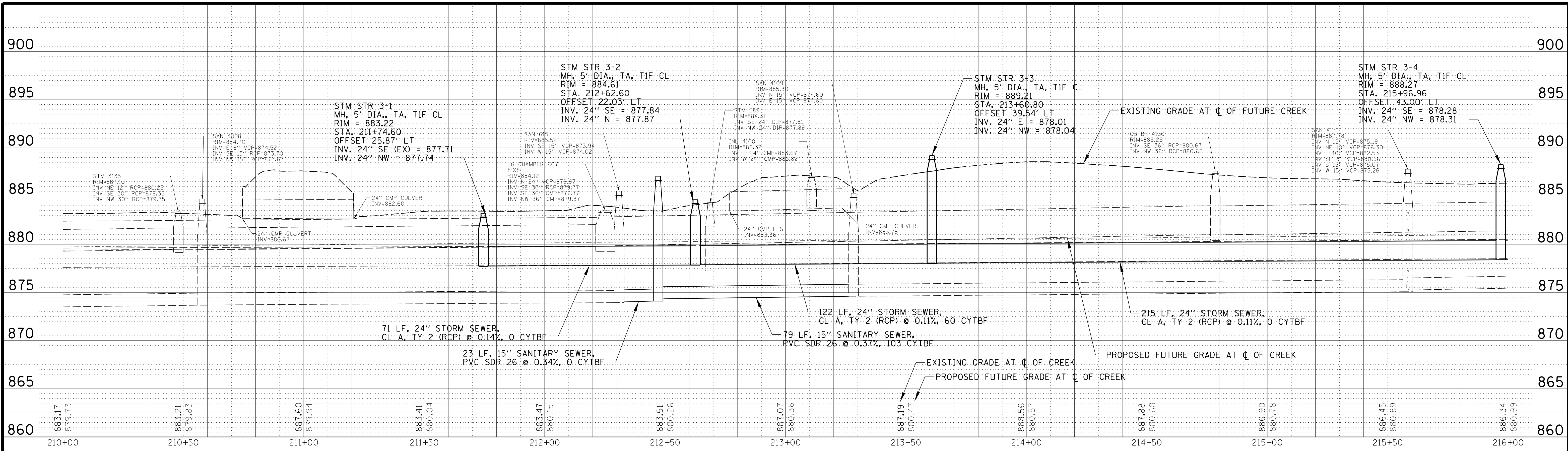


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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

				DSGN.	JAL	DTO	TITLE: CRYSTAL CREEK DAYLIGHTING PROJECT PHASE 1 PROPOSED UTILITY PROFILE	PROJ. NO. 08-0364,55B
				DWN.	MAK			DATE: 10/6/2025
				CHKD.	JGS	WJS		SHEET 18 OF 93
				SCALE:	20'			DRAWING NO.
				PLOT DATE:	10/6/2025			
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NO.	DATE	NATURE OF REVISION						
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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

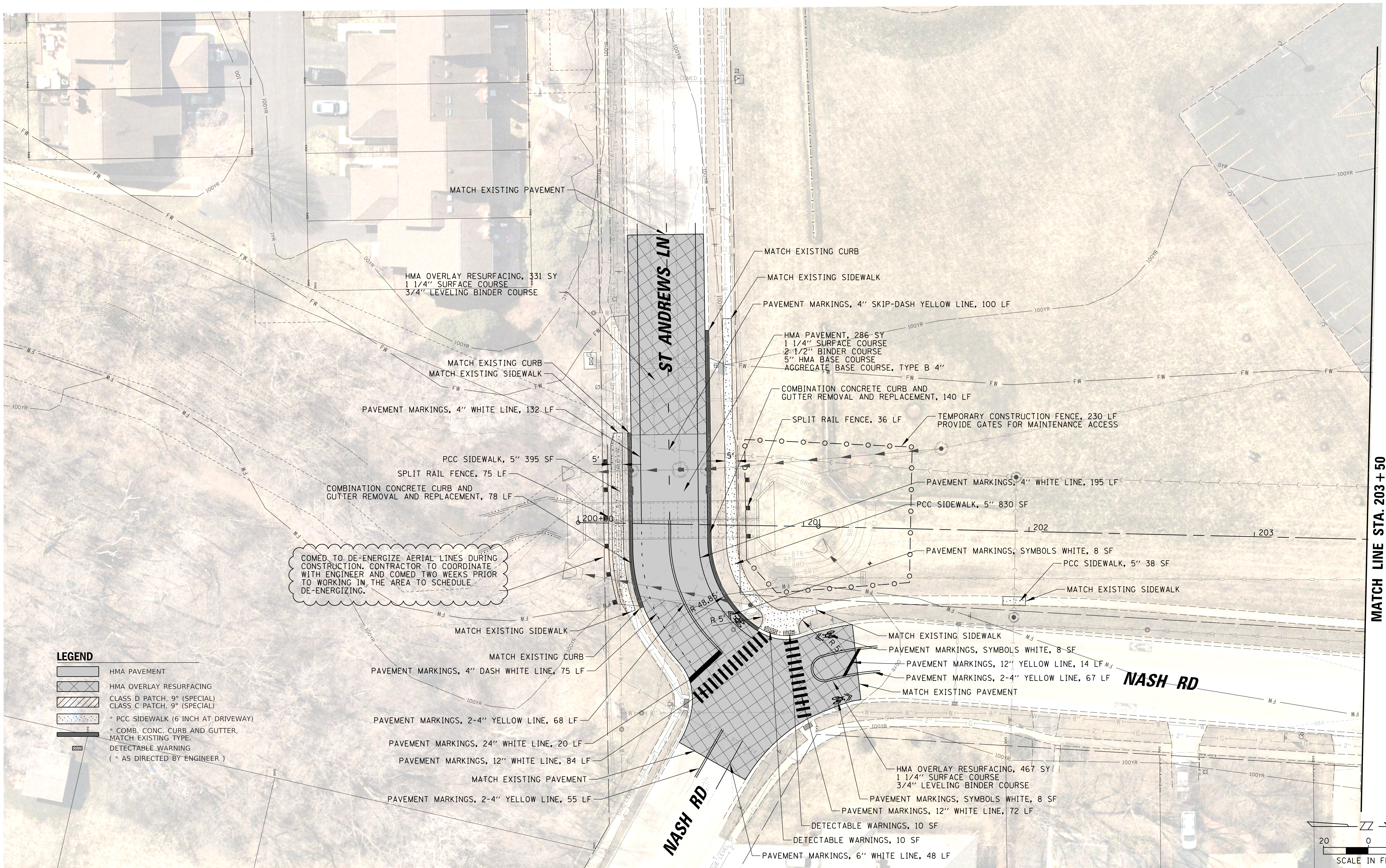
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DSGN.	JAL	DTO
DWN.	MAK	
CHKD.	JGS	WJS
SCALE:	20'	
PLOT DATE:	10/6/2025	
CAD USER:	mkoance	
MODEL:	Default	

TITLE:	CRYSTAL CREEK DAYLIGHTING PROJECT PHASE 1 PROPOSED UTILITY PROFILE
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PROJ. NO.	08-0364.55B
DATE:	10/6/2025
SHEET 19	OF 93
DRAWING NO.	19



LEGEND

- HMA PAVEMENT
- HMA OVERLAY RESURFACING
- CLASS D PATCH, 9" (SPECIAL)
- CLASS C PATCH, 9" (SPECIAL)
- * PCC SIDEWALK (6 INCH AT DRIVEWAY)
- * COMB. CONC. CURB AND GUTTER, MATCH EXISTING TYPE.
- DETECTABLE WARNING
- (* AS DIRECTED BY ENGINEER)

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CRYSTAL LAKE, IL. 60014

					DSGN.	JAL	DT0
					DWN.	MAK	
					CHKD.	JGS	WJS
					SCALE:	20'	
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NO.	DATE	NATURE OF REVISION			CHKD.	MODEL:	
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TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 1 PROPOSED
IMPROVEMENTS PLAN**

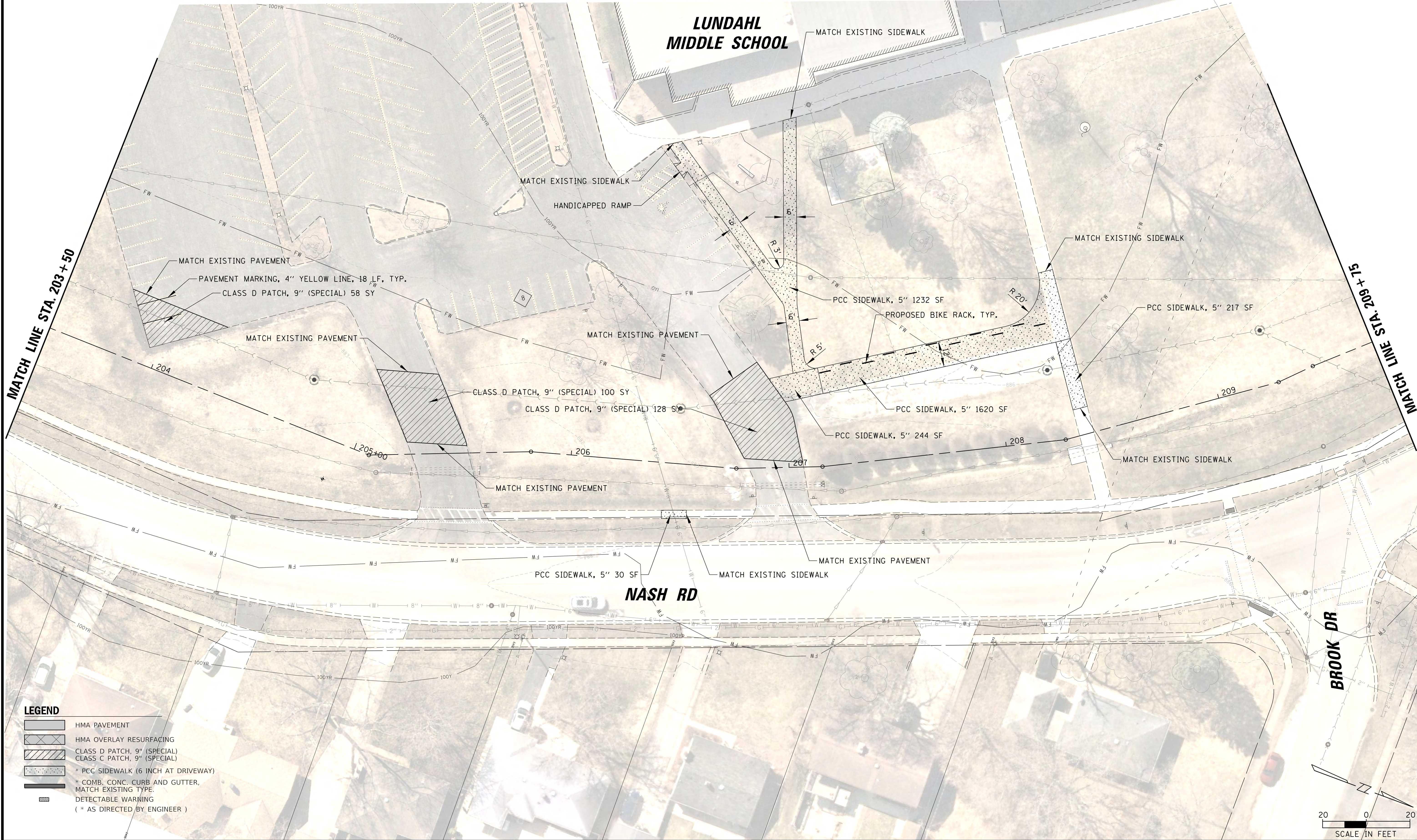
PROJ. NO. 08-0364.55B

DATE: 10/6/2025

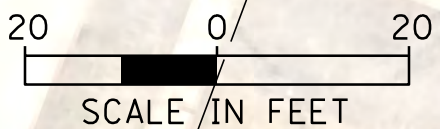
SHEET 20 OF 93

DRAWING NO.

20



- LEGEND**
- HMA PAVEMENT
 - HMA OVERLAY RESURFACING
 - CLASS D PATCH, 9" (SPECIAL)
 - CLASS C PATCH, 9" (SPECIAL)
 - * PCC SIDEWALK (6 INCH AT DRIVEWAY)
 - * COMB. CONC. CURB AND GUTTER, MATCH EXISTING TYPE.
 - DETECTABLE WARNING
 - (* AS DIRECTED BY ENGINEER)



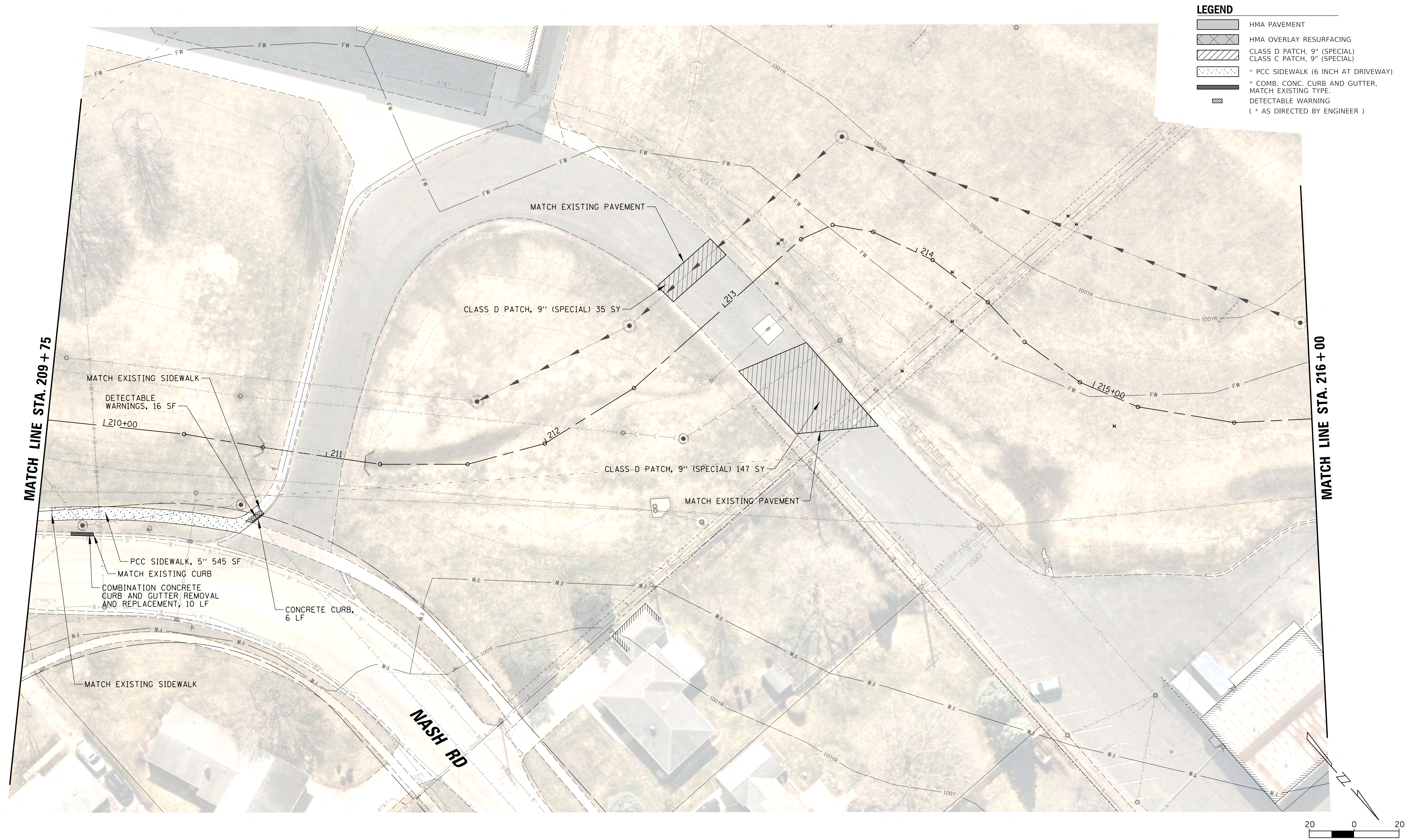
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CRYSTAL LAKE, IL. 60014

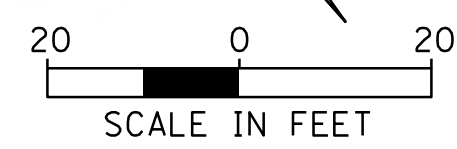
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TITLE:	CRYSTAL CREEK DAYLIGHTING PROJECT PHASE 1 PROPOSED IMPROVEMENTS PLAN	PROJ. NO. 08-0364.55B
		DATE: 10/6/2025
		SHEET 21 OF 93
		DRAWING NO.
		21



LEGEND

- HMA PAVEMENT
- HMA OVERLAY RESURFACING
- CLASS D PATCH, 9" (SPECIAL)
- CLASS C PATCH, 9" (SPECIAL)
- * PCC SIDEWALK (6 INCH AT DRIVEWAY)
- * COMB. CONC. CURB AND GUTTER, MATCH EXISTING TYPE.
- DETECTABLE WARNING
- (* AS DIRECTED BY ENGINEER)



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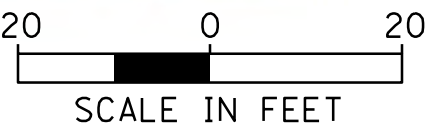
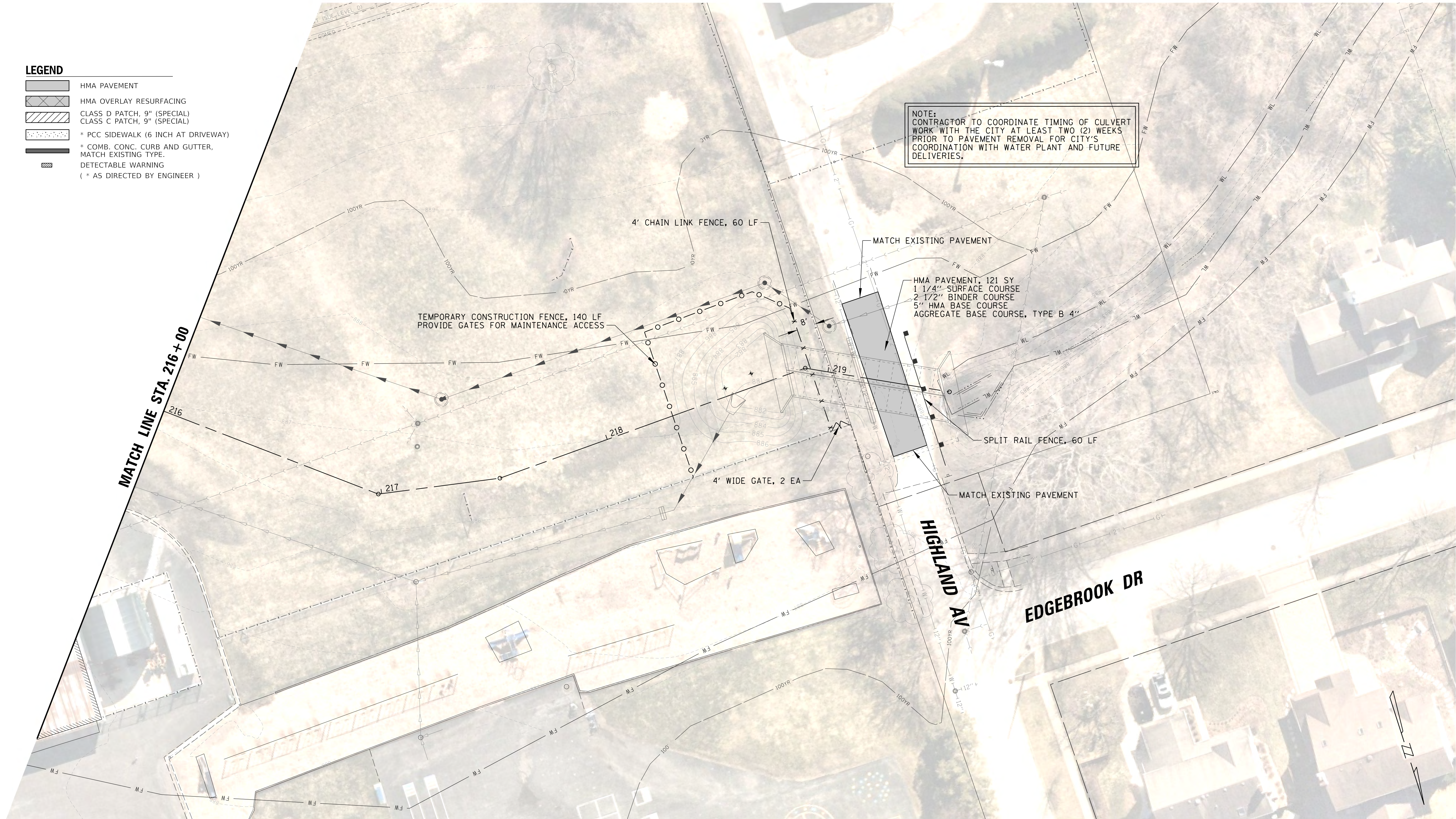
CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

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LEGEND

- HMA PAVEMENT
- HMA OVERLAY RESURFACING
- CLASS D PATCH, 9" (SPECIAL)
- CLASS C PATCH, 9" (SPECIAL)
- * PCC SIDEWALK (6 INCH AT DRIVEWAY)
- * COMB. CONC. CURB AND GUTTER, MATCH EXISTING TYPE.
- DETECTABLE WARNING
- (* AS DIRECTED BY ENGINEER)

NOTE:
CONTRACTOR TO COORDINATE TIMING OF CULVERT WORK WITH THE CITY AT LEAST TWO (2) WEEKS PRIOR TO PAVEMENT REMOVAL FOR CITY'S COORDINATION WITH WATER PLANT AND FUTURE DELIVERIES.



CHRISTOPHER B. BURKE ENGINEERING, LTD.
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Rosemont, Illinois 60018
(847) 823-0500

CLIENT:



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

			DSGN.	JAL	DT0
			DWN.	MAK	
			CHKD.	JGS	WJS
			SCALE:	20'	
			PLOT DATE:	10/6/2025	
			CAD USER:	mkoonce	
			MODEL:	Default	
NO.	DATE	NATURE OF REVISION	CHKD.		
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek Daylight\Civil\PHI_PRO_080364.00055_04.dgn				

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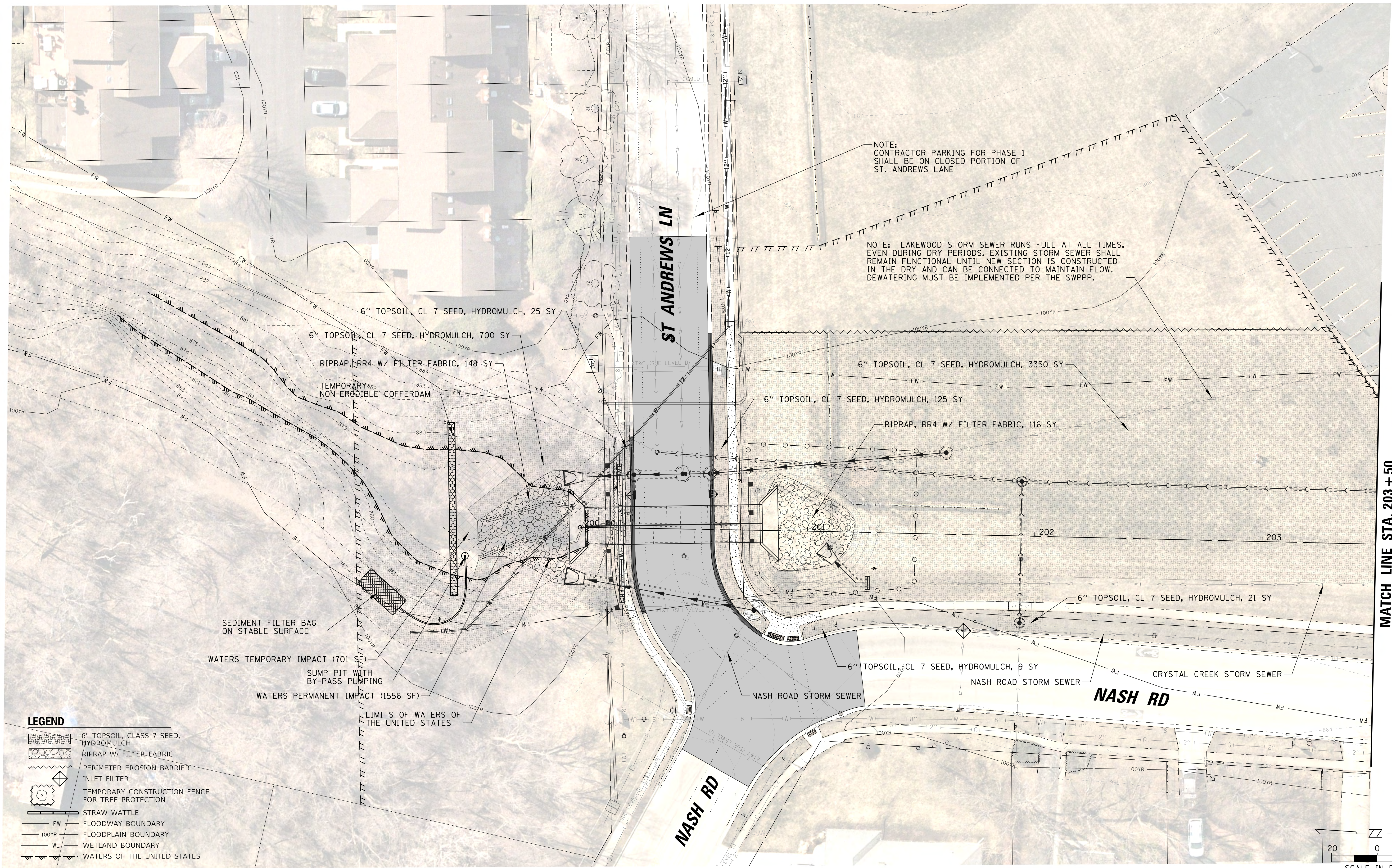
**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 1 PROPOSED
IMPROVEMENTS PLAN**

PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 23 OF 93

DRAWING NO.



MATCH LINE STA. 203+50

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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

				DSGN.	JAL	DT0
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				CHKD.	JGS	WJS
				SCALE:	20'	
				PLOT DATE:	10/6/2025	
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NO.	DATE	NATURE OF REVISION			CHKD.	
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TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 1 SOIL EROSION
SEDIMENT CONTROL PLAN**

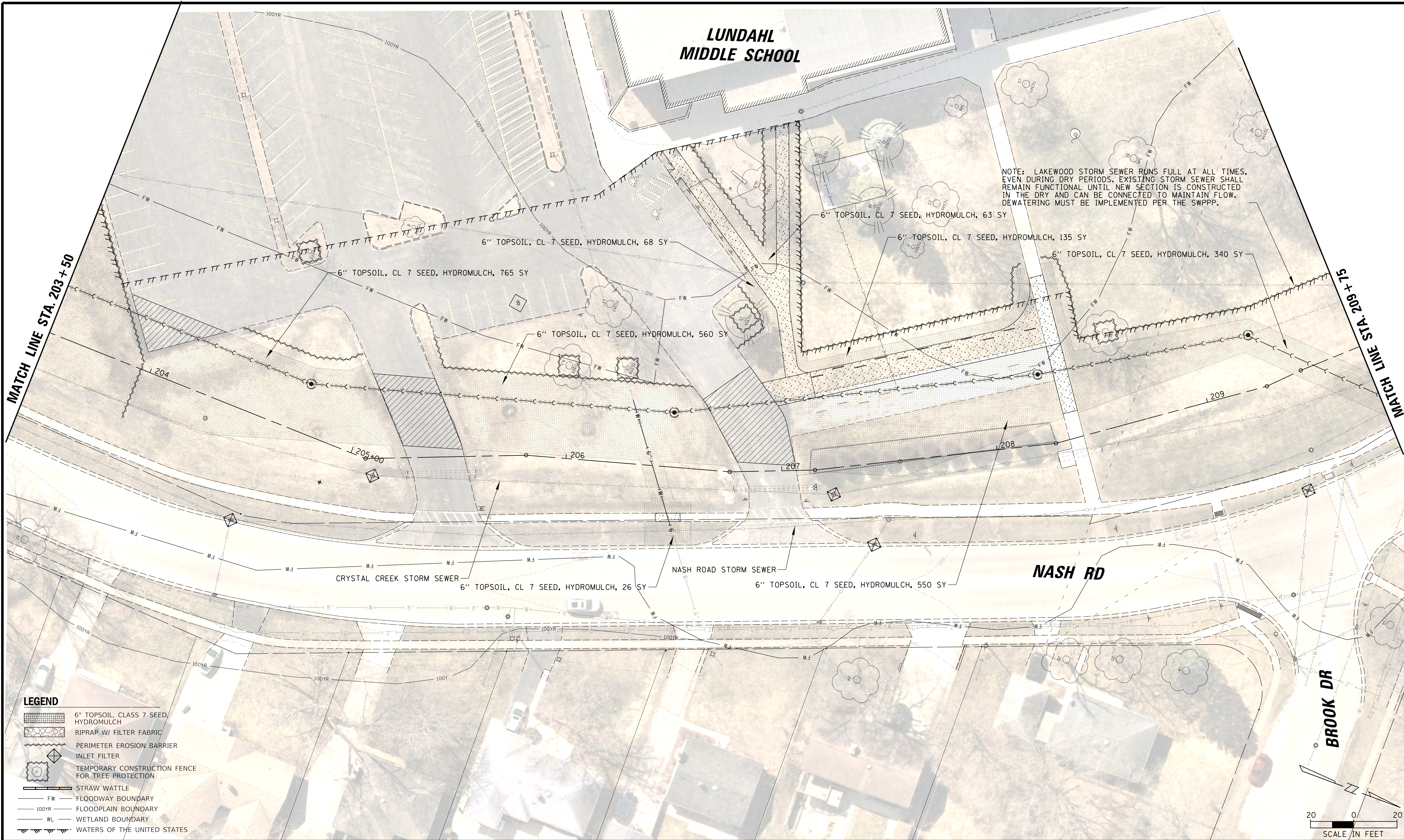
PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 25 OF 93

DRAWING NO.

25



- LEGEND**
- 6" TOPSOIL, CLASS 7 SEED, HYDROMULCH
 - RIPRAP W/ FILTER FABRIC
 - PERIMETER EROSION BARRIER
 - INLET FILTER
 - TEMPORARY CONSTRUCTION FENCE FOR TREE PROTECTION
 - STRAW WATTLE
 - FW FLOODWAY BOUNDARY
 - 100YR FLOODPLAIN BOUNDARY
 - WL WETLAND BOUNDARY
 - WATERS OF THE UNITED STATES

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Rosemont, Illinois 60018
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CLIENT:



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL
1	10/6/2025	Initial Design	JAL	DT0
2	10/6/2025	Revised Design	MAK	WJS
3	10/6/2025	Final Design	JGS	WJS
4	10/6/2025	Final Design	JGS	WJS
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8	10/6/2025	Final Design	JGS	WJS
9	10/6/2025	Final Design	JGS	WJS
10	10/6/2025	Final Design	JGS	WJS

TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 1 SOIL EROSION
SEDIMENT CONTROL PLAN**

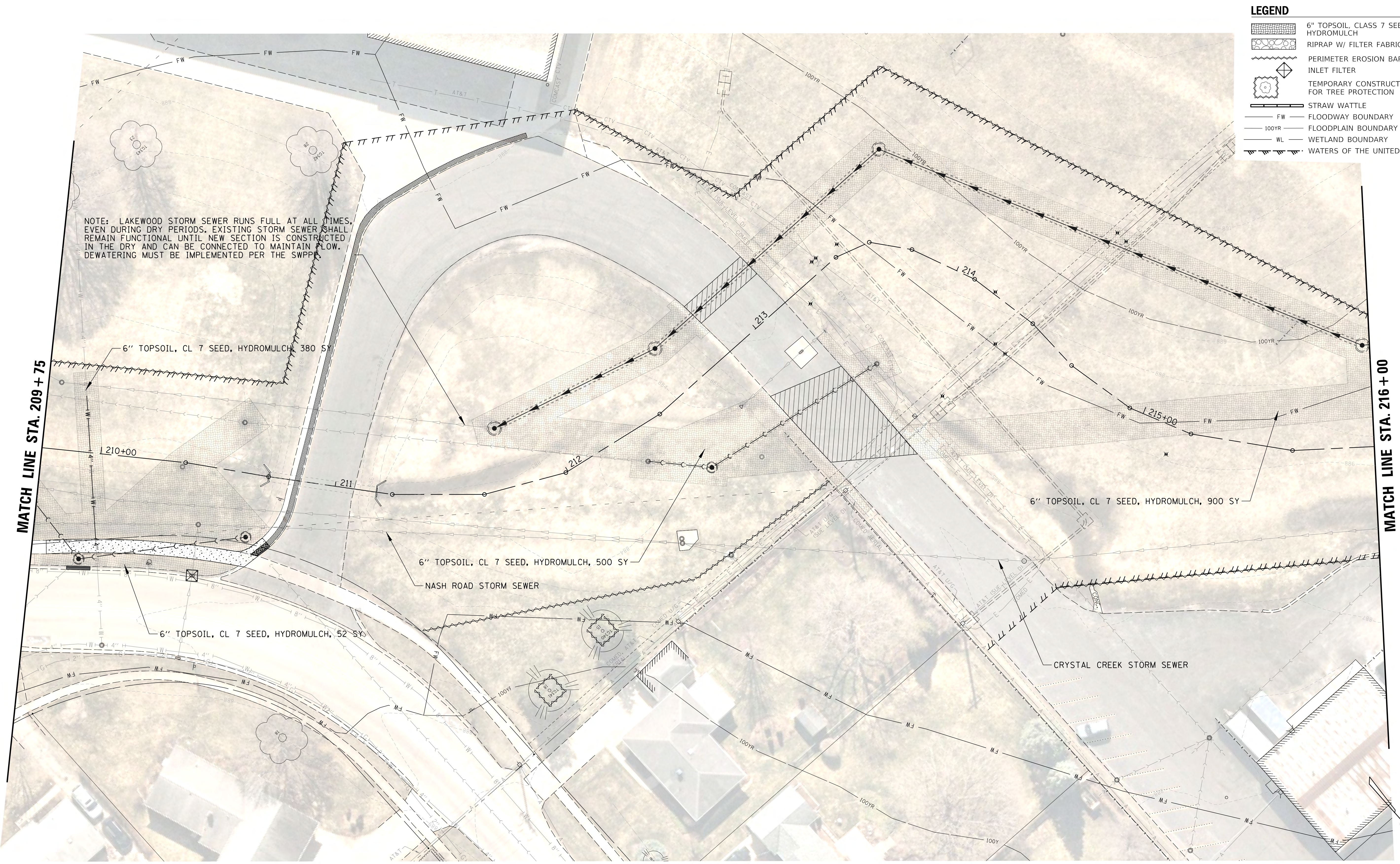
PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 26 OF 93

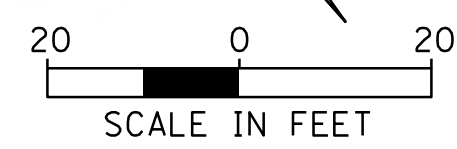
DRAWING NO.

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LEGEND

- 6" TOPSOIL, CLASS 7 SEED, HYDROMULCH
- RIPRAP W/ FILTER FABRIC
- PERIMETER EROSION BARRIER
- INLET FILTER
- TEMPORARY CONSTRUCTION FENCE FOR TREE PROTECTION
- STRAW WATTLE
- FW FLOODWAY BOUNDARY
- 100YR FLOODPLAIN BOUNDARY
- WL WETLAND BOUNDARY
- WATERS OF THE UNITED STATES



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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

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TITLE: **CRYSTAL CREEK DAYLIGHTING PROJECT PHASE 1 SOIL EROSION SEDIMENT CONTROL PLAN**

PROJ. NO. 08-0364.55B
DATE: 10/6/2025
SHEET 27 OF 93
DRAWING NO. 27

- LEGEND**
- 6" TOPSOIL, CLASS 7 SEED, HYDROMULCH
 - RIPRAP W/ FILTER FABRIC
 - PERIMETER EROSION BARRIER
 - INLET FILTER
 - TEMPORARY CONSTRUCTION FENCE FOR TREE PROTECTION
 - STRAW WATTLE
 - FW FLOODWAY BOUNDARY
 - 100YR FLOODPLAIN BOUNDARY
 - WL WETLAND BOUNDARY
 - WATERS OF THE UNITED STATES

NOTE: LAKEWOOD STORM SEWER RUNS FULL AT ALL TIMES, EVEN DURING DRY PERIODS. EXISTING STORM SEWER SHALL REMAIN FUNCTIONAL UNTIL NEW SECTION IS CONSTRUCTED IN THE DRY AND CAN BE CONNECTED TO MAINTAIN FLOW. DEWATERING MUST BE IMPLEMENTED PER THE SWPPP.

RIPRAP, RR4 W/ FILTER FABRIC, 134 SY

6" TOPSOIL, CL 7 SEED, HYDROMULCH, 1850 SY

6" TOPSOIL, CL 7 SEED, HYDROMULCH, 1880 SY

TEMPORARY NON-ERODIBLE COFFERDAM

SUMP PIT WITH BY-PASS PUMPING

WATERS TEMPORARY IMPACT (36 SF)

LIMITS OF WATERS OF THE UNITED STATES

RIPRAP, RR4 W/ FILTER FABRIC, 77 SY

WATERS PERMANENT IMPACT (508 SF)

CRYSTAL CREEK STORM SEWER

HIGHLAND AV
EDGEBROOK DR

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SCALE IN FEET

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Rosemont, Illinois 60018
(847) 823-0500

CLIENT:



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

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TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 1 SOIL EROSION
SEDIMENT CONTROL PLAN**

PROJ. NO. 08-0364,55B
DATE: 10/6/2025
SHEET 28 OF 93
DRAWING NO.
28

PHASE 2 CONSTRUCTION SEQUENCING

THIS SEQUENCE OF CONSTRUCTION IS PROVIDED AS A RECOMMENDED SEQUENCING. THE CONTRACTOR SHALL PROVIDE A FINAL CONSTRUCTION SEQUENCE OUTLINE FOR APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION COMMENCEMENT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE BY-PASS PUMPING AS NOTED IN THE PLANS, SPECIFICATIONS, AND PER THE ENGINEER AT ALL TIMES. CONTRACTOR MAY COMPLETE VARIOUS ITEMS CONCURRENTLY WITH PRIOR APPROVAL BY THE ENGINEER. AT LEAST ONE SCHOOL ENTRANCE DRIVE SHALL BE OPEN TO EMERGENCY VEHICLES AT ALL TIMES.

ITEMS THAT MAY START PRIOR TO SUMMER BREAK:

- 1. EXCAVATE AND ISOLATE 100 LINEAR FEET OF CHANNEL FOR PUMP DISCHARGE AT ST. ANDREWS LANE. INSTALL ROCK CHECK DAM AND POLYMER FLOCCULATION TRAIN (BOTH ITEMS SHALL BE CONSIDERED INCIDENTAL TO COFFERDAMS, DEWATERING, AND BYPASS PUMPING).
- 2. AT THE NASH ROAD JUNCTION CHAMBER, PLUG CRYSTAL CREEK STORM SEWER AND DIVERT ALL STORMWATER INTO EXISTING NASH ROAD STORM SEWER SYSTEM.
- 3. EXCAVATE CHANNEL AND INSTALL PROPOSED BOX CULVERT IN THE DRY IN AREA SOUTH OF THE EXISTING SOUTHERN PARKING LOT ENTRANCE. DUE TO GROUNDWATER, IT SHALL BE ASSUMED THAT PUMPING OF THE EXCAVATED AREAS WILL BE REQUIRED AT ALL TIMES WITH DISCHARGE INTO THE DOWNSTREAM SEDIMENT BASIN (STEP 1A). SEED AND BLANKET SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF CONSTRUCTION TO STABILIZE CHANNEL BANKS

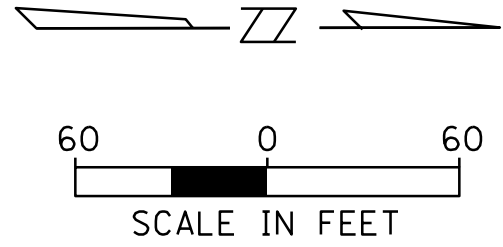
WORK ITEMS THAT CANNOT START UNTIL SUMMER BREAK:

- 4. EXCAVATE AND ISOLATE 100 LINEAR FEET OF CHANNEL FOR PUMP DISCHARGE AT HIGHLAND AVENUE. INSTALL ROCK CHECK DAM AND POLYMER FLOCCULATION TRAIN (BOTH ITEMS SHALL BE CONSIDERED INCIDENTAL TO COFFERDAMS, DEWATERING, AND BYPASS PUMPING) WITH DISCHARGE BACK INTO THE EXISTING CRYSTAL CREEK STORM SEWER SYSTEM.
- 5. UTILIZE DECOMMISSIONED NASH ROAD STORM SEWER (PRIOR TO REMOVAL) OR INSTALL TEMPORARY STORM SEWER OF SIMILAR SIZE (30-INCH TO 36-INCH DIAMETER) TO ALLOW CREEK WATER TO FLOW AROUND WORK AREA BY THE SCHOOL DROP-OFF AND CONTINUE SOUTH IN THE REMAINING NASH ROAD STORM SEWER.
- 6. EXCAVATE CHANNEL AND INSTALL PROPOSED BOX CULVERTS IN THE DRY. DUE TO GROUNDWATER, IT SHALL BE ASSUMED THAT PUMPING OF THE EXCAVATED AREAS WILL BE REQUIRED AT ALL TIMES WITH DISCHARGE INTO FILTER BAGS OR AN ADJACENT SEDIMENT BASIN (STEP 1A OR 4) (FILTER BAGS AND SEDIMENT BASIN SHALL BE CONSIDERED INCIDENTAL TO COFFERDAMS, DEWATERING, AND BYPASS PUMPING). SEED AND BLANKET SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF CONSTRUCTION TO STABILIZE CHANNEL BANKS.
- 7. INSTALL OUTFLOW PIPE FES (3 LOCATIONS) TO FUTURE CREEK WHERE SHOWN ON PLANS.
- 8. REMOVE TEMPORARY PIPING, SEDIMENT TRAP AND POLYMER FLOCCULATION TRAIN AND STABILIZE CHANNEL PER THE PLANS.
- 9. FINAL GRADE AREAS OUTSIDE OF CHANNEL AND REMOVE EROSION CONTROL MEASSURES.

LAKEWOOD STORM SEWER RUNS FULL AT ALL TIMES, EVEN DURING DRY PERIODS.

NOTE:
CONTRACTOR PARKING FOR PHASE 2 SHALL BE AT THE WATER PLANT OR APPROVED SIDE STREETS AS DESIGNATED BY THE CITY.

NORTHERN LIMIT OF WORK THAT CAN BE COMPLETED PRIOR TO SUMMER BREAK



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Rosemont, Illinois 60018
(847) 823-0500

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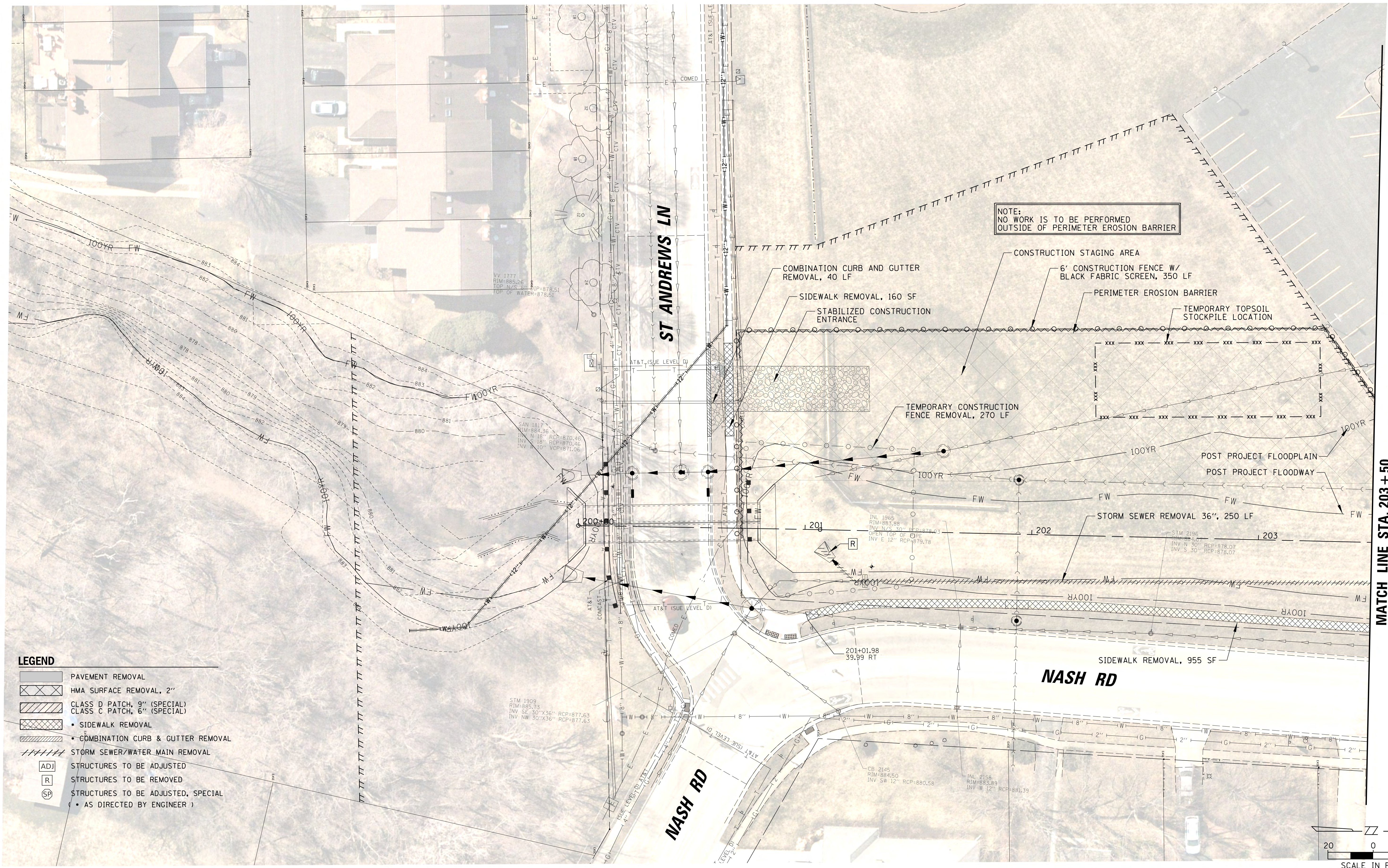


CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

			DSGN.	JAL	DT0
			DWN.	MAK	
			CHKD.	JGS	WJS
			SCALE:	60'	
			PLOT DATE:	10/6/2025	
			CAD USER:	mkoonce	
			MODEL:	Default	
NO.	DATE	NATURE OF REVISION	CHKD.		
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek_Daylight\Civil\PH2_SE0_080364_00055_01.dgn				

TITLE: **CRYSTAL CREEK DAYLIGHTING PROJECT**
PHASE 2 RECOMMENDED MIN. MEASURES FOR STAGING AND DEWATERING

PROJ. NO. 08-0364.55B
DATE: 10/6/2025
SHEET 29 OF 93
DRAWING NO. **29**



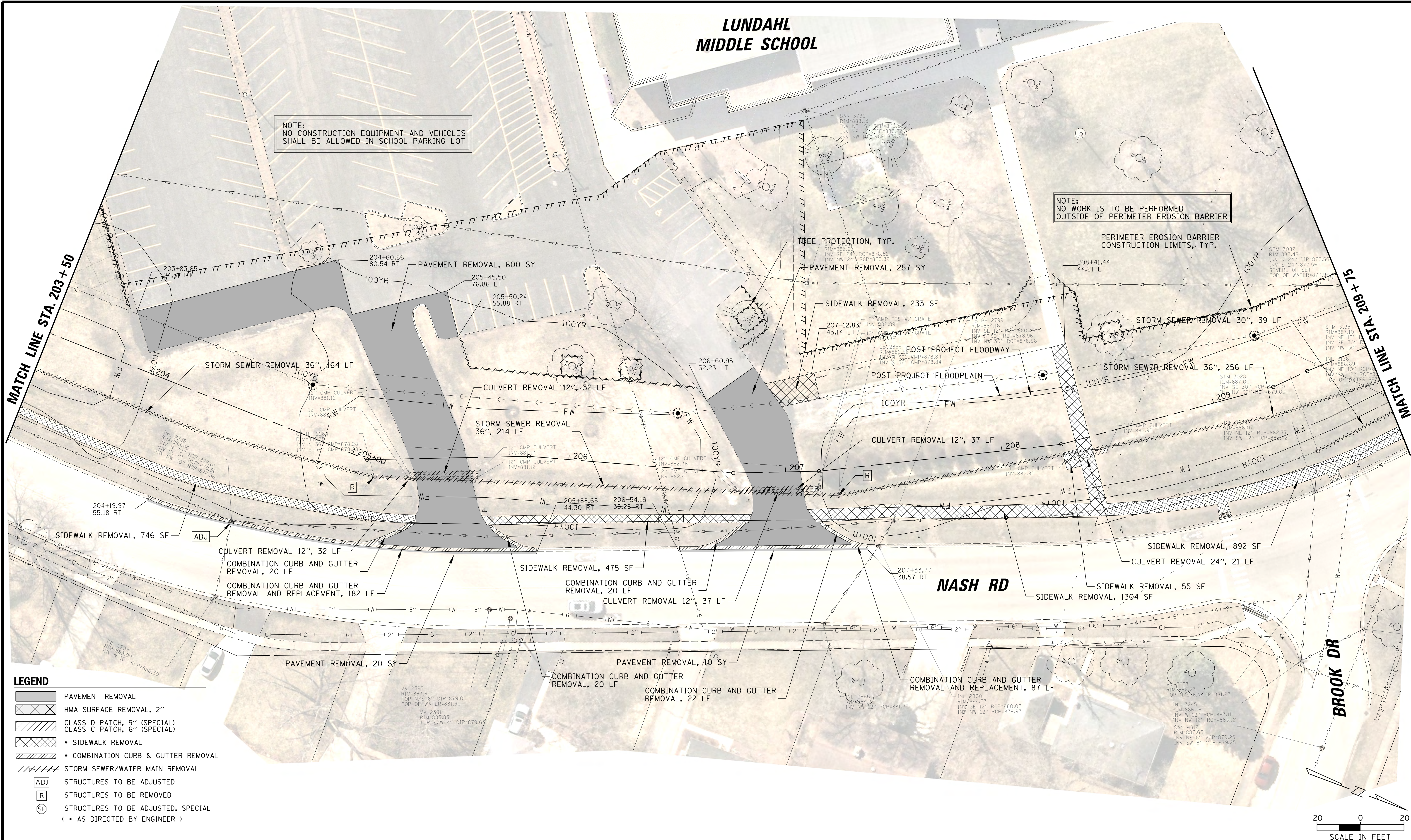
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Rosemont, Illinois 60018
(847) 823-0500



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
1	10/6/2025	Initial Design	JAL	DT0
2	10/6/2025	Revised Design	MAK	WJS
3	10/6/2025	Final Design	JGS	WJS
4	10/6/2025	Construction	WJS	WJS
5	10/6/2025	As-Built	WJS	WJS
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8	10/6/2025	Final	WJS	WJS
9	10/6/2025	Final	WJS	WJS
10	10/6/2025	Final	WJS	WJS

TITLE:	CRYSTAL CREEK DAYLIGHTING PROJECT PHASE 2 EXISTING CONDITIONS AND REMOVAL PLAN
PROJ. NO.	08-0364.55B
DATE:	10/6/2025
SHEET	30 OF 93
DRAWING NO.	30



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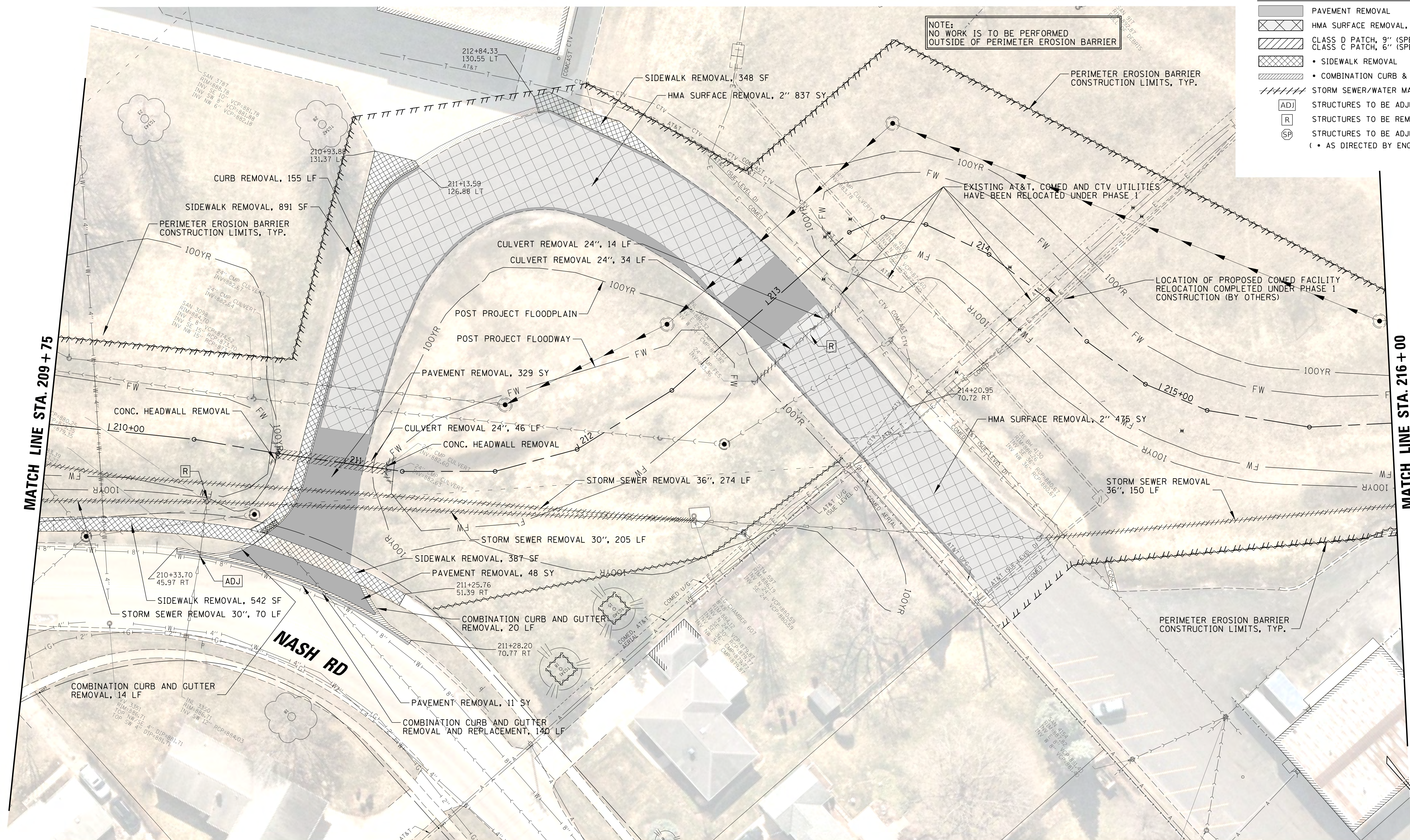
CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

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TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 EXISTING CONDITIONS
AND REMOVAL PLAN**

PROJ. NO. 08-0364.55B
DATE: 10/6/2025
SHEET 31 OF 93
DRAWING NO.
31



- LEGEND**
- PAVEMENT REMOVAL
 - HMA SURFACE REMOVAL, 2"
 - CLASS D PATCH, 9" (SPECIAL)
CLASS C PATCH, 6" (SPECIAL)
 - SIDEWALK REMOVAL
 - COMBINATION CURB & GUTTER REMOVAL
 - STORM SEWER/WATER MAIN REMOVAL
 - STRUCTURES TO BE ADJUSTED (ADJ)
 - STRUCTURES TO BE REMOVED (R)
 - STRUCTURES TO BE ADJUSTED, SPECIAL (SP)
 - (• AS DIRECTED BY ENGINEER)

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Rosemont, Illinois 60018
(847) 823-0500

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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
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TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 EXISTING CONDITIONS
AND REMOVAL PLAN**

PROJ. NO. 08-0364.55B

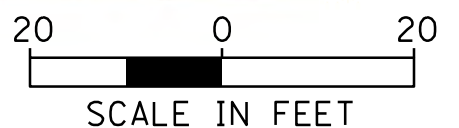
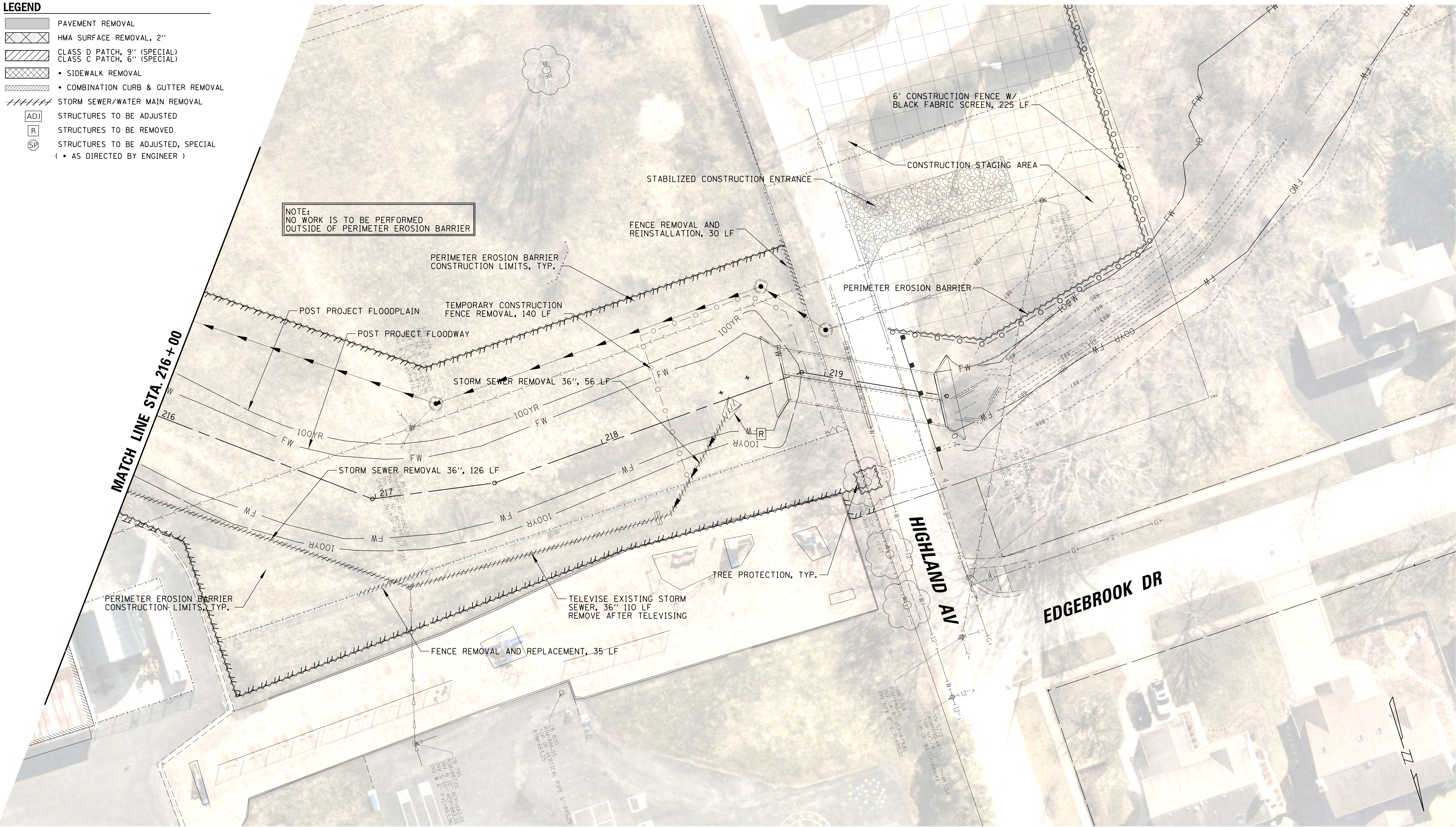
DATE: 10/6/2025

SHEET 32 OF 93

DRAWING NO.

32

- LEGEND**
- PAVEMENT REMOVAL
 - HMA SURFACE REMOVAL, 2"
 - CLASS D PATCH, 9" (SPECIAL)
 - CLASS C PATCH, 6" (SPECIAL)
 - SIDEWALK REMOVAL
 - COMBINATION CURB & GUTTER REMOVAL
 - STORM SEWER/WATER MAIN REMOVAL
 - STRUCTURES TO BE ADJUSTED
 - STRUCTURES TO BE REMOVED
 - STRUCTURES TO BE ADJUSTED, SPECIAL (• AS DIRECTED BY ENGINEER)



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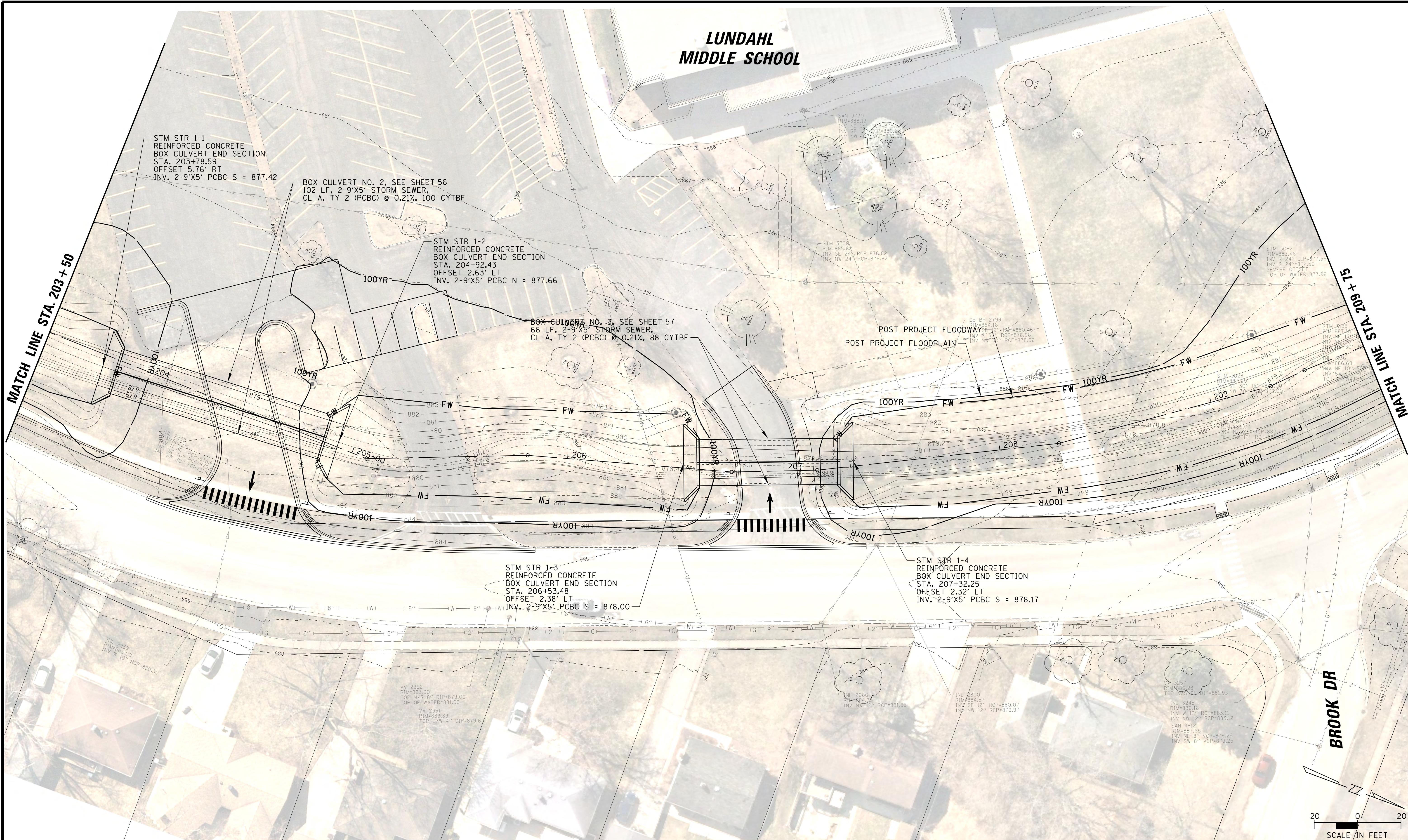


CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

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FILE NAME N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek Daylight\Civil\PH2.REM_080364.00055.04.dgn						

TITLE: **CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 EXISTING CONDITIONS
AND REMOVAL PLAN**

PROJ. NO. 08-0364.55B
DATE: 10/6/2025
SHEET 33 OF 93
DRAWING NO.
33



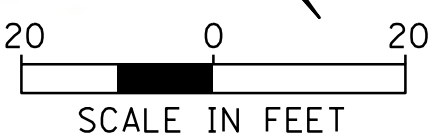
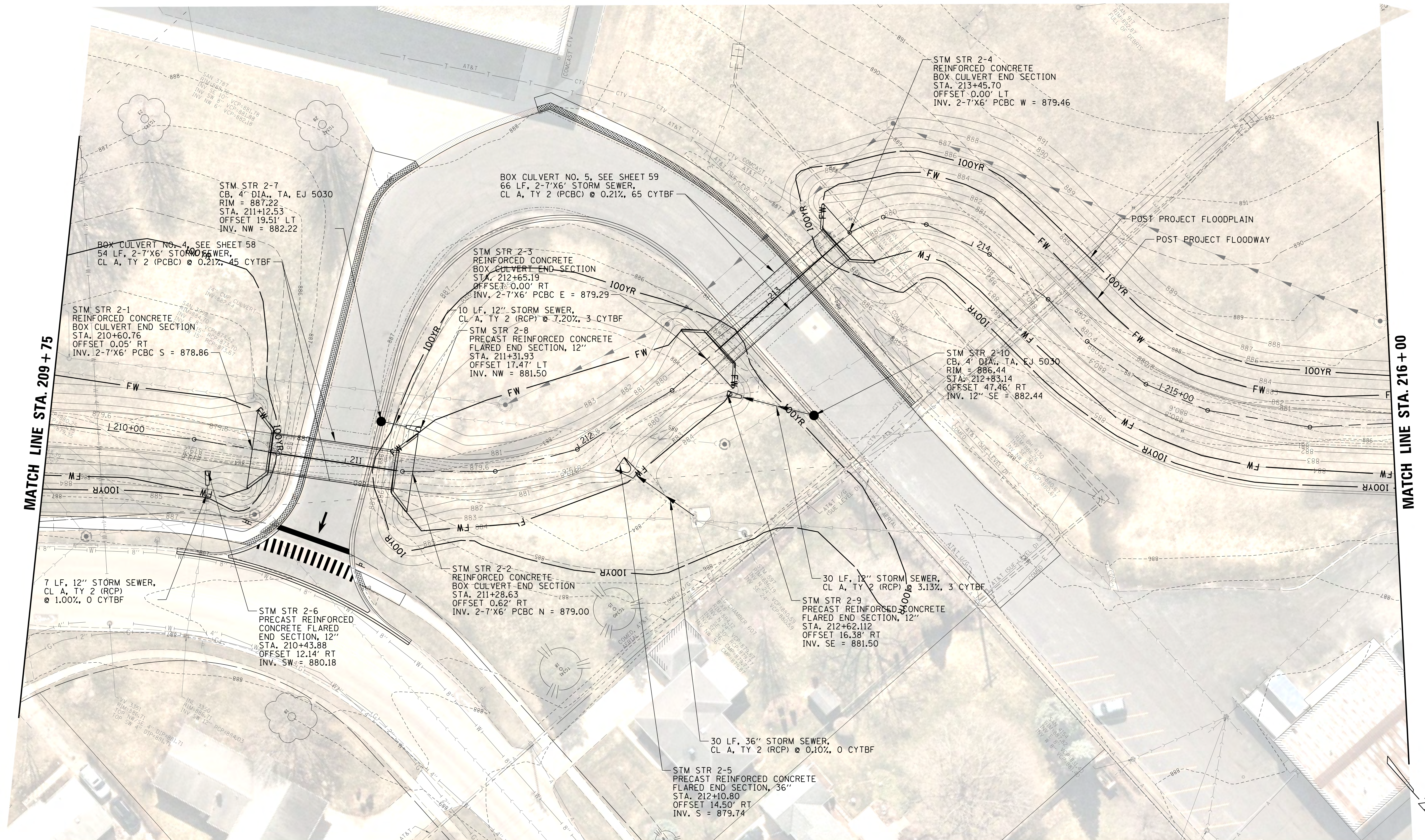
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Rosemont, Illinois 60018
(847) 823-0500

CLIENT:



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

				DSGN.	JAL	DTO
				DWN.	MAK	
				CHKD.	JGS	WJS
				SCALE:	20'	
				PLOT DATE:	10/6/2025	
				CAD USER:	mkoonce	
				CHKD.	MODEL:	Default
NO.	DATE	NATURE OF REVISION				
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek Daylight+Civil\PH2\JTL_080364.00055.02.dgn					



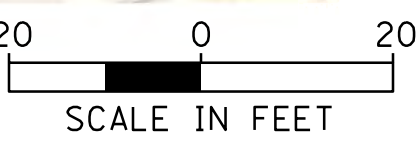
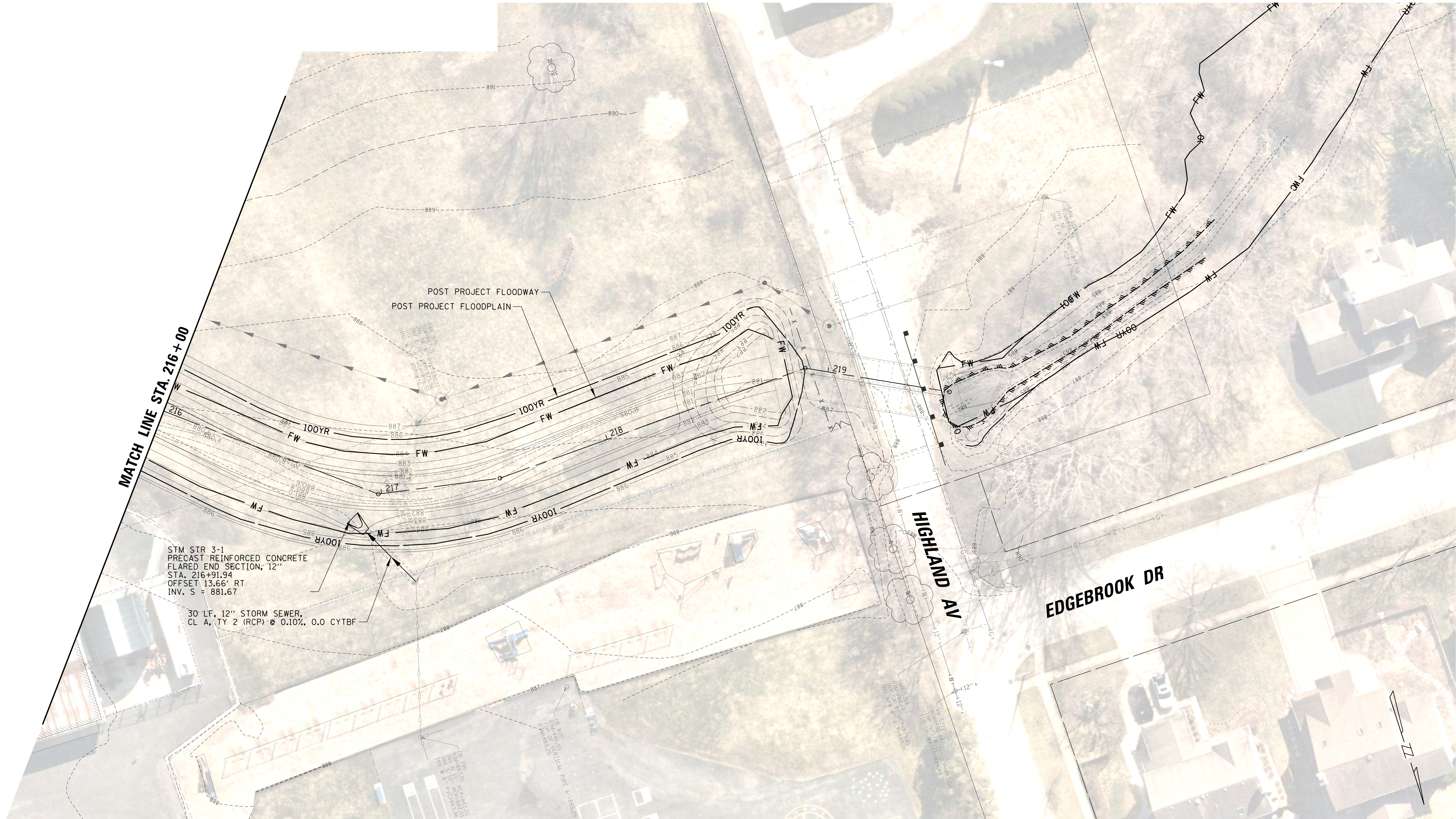
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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL
1	10/6/2025	Initial Design	JAL	MAK
2	10/6/2025	Revised Design	JAL	MAK
3	10/6/2025	Final Design	JAL	MAK
4	10/6/2025	As-Built	JAL	MAK
5	10/6/2025	Revised Design	JAL	MAK
6	10/6/2025	Final Design	JAL	MAK
7	10/6/2025	As-Built	JAL	MAK
8	10/6/2025	Revised Design	JAL	MAK
9	10/6/2025	Final Design	JAL	MAK
10	10/6/2025	As-Built	JAL	MAK

TITLE:	CRYSTAL CREEK DAYLIGHTING PROJECT PHASE 2 PROPOSED UTILITY PLAN
PROJ. NO.	08-0364.55B
DATE:	10/6/2025
SHEET	36 OF 93
DRAWING NO.	36

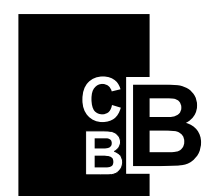
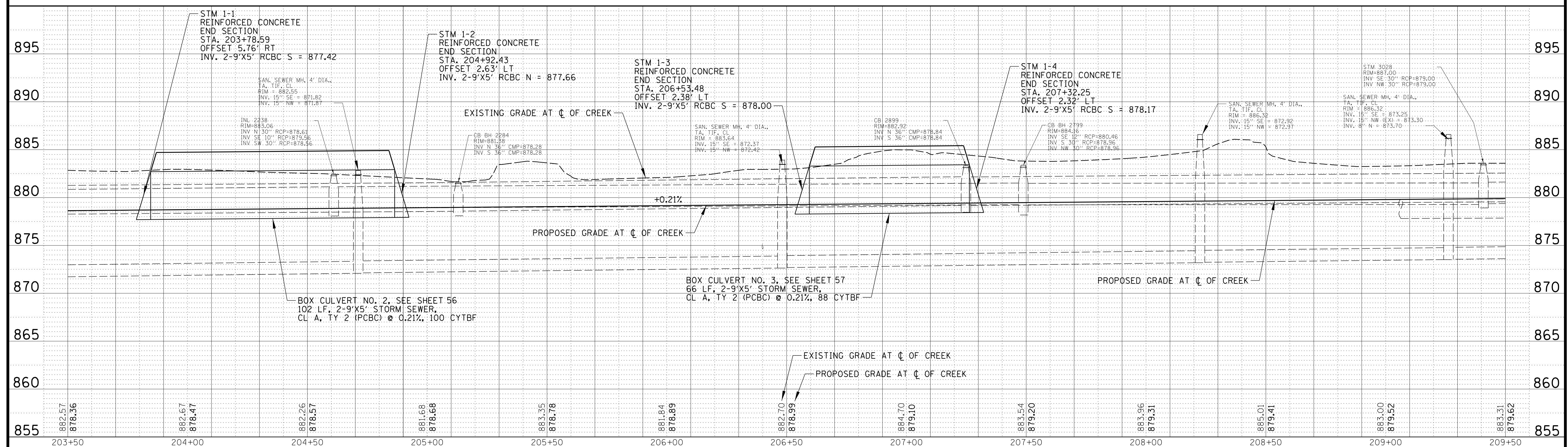
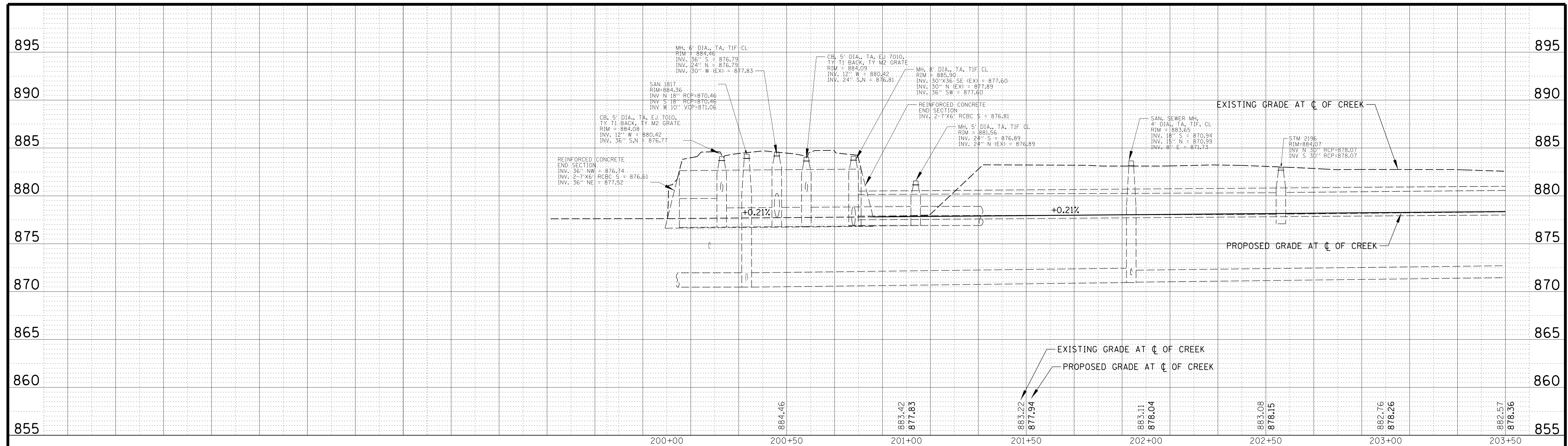


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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

			DSGN.	JAL	DTO
			DWN.	MAK	
			CHKD.	JGS	WJS
			SCALE:	20'	
			PLOT DATE:	10/6/2025	
			CAD USER:	mkoonce	
NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:	Default
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - Crystal Creek Daylight\CVI\PH2_UTL_080364.00055_04.dgn				



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100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

				DSGN.	JAL	DTO
				DWN.	MAK	
				CHKD.	JGS	WJS
				SCALE:	20'	
				PLOT DATE:	10/6/2025	
				CAD USER:	mkoonce	
NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:	Default	
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TITLE:

CRYSTAL CREEK DAYLIGHTING PROJECT PHASE 2 PROPOSED UTILITY PROFILE

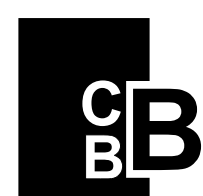
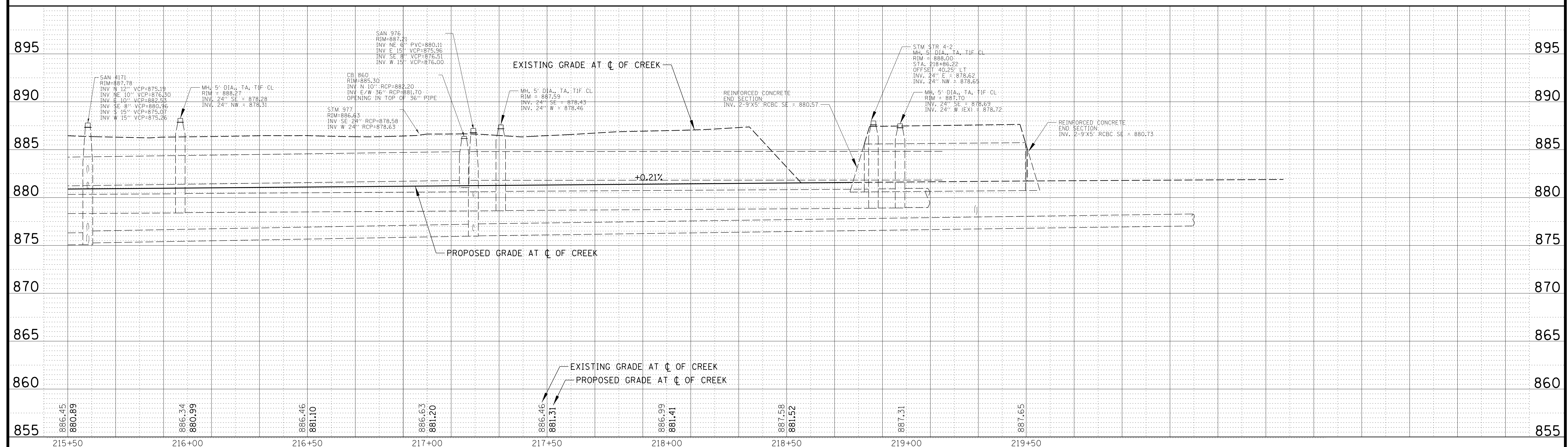
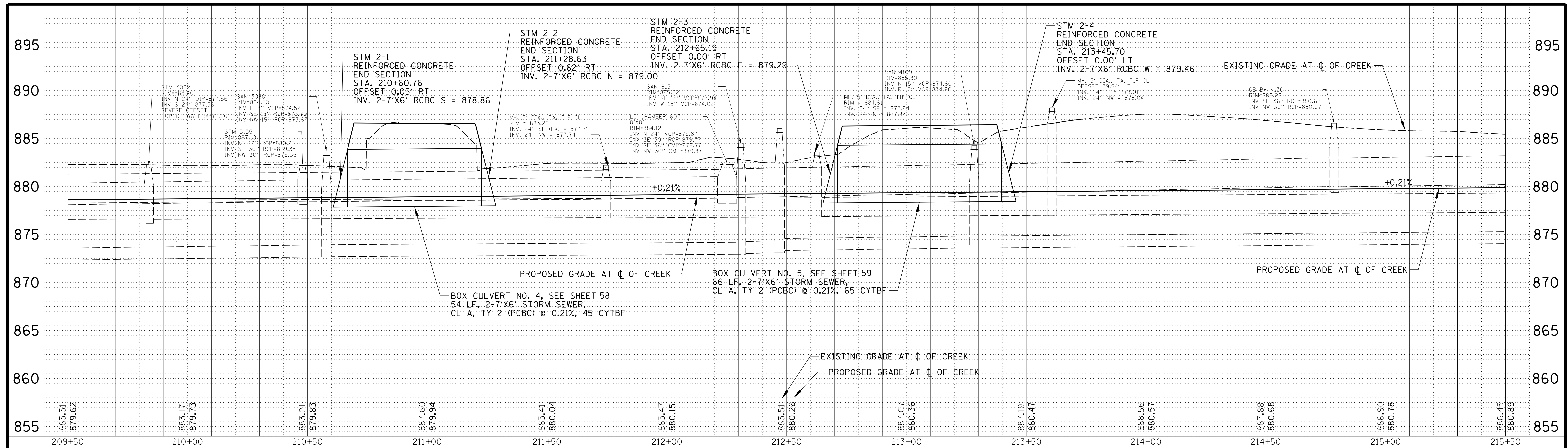
PROJ. NO. 08-0364.55B

DATE:	10/6/2025
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SHEET 38 OF 93

DRAWING NO.

38



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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

				DSGN.	JAL	DT0
				DWN.	MAK	
				CHKD.	JGS	WJS
				SCALE:	20'	
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NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:	Default	
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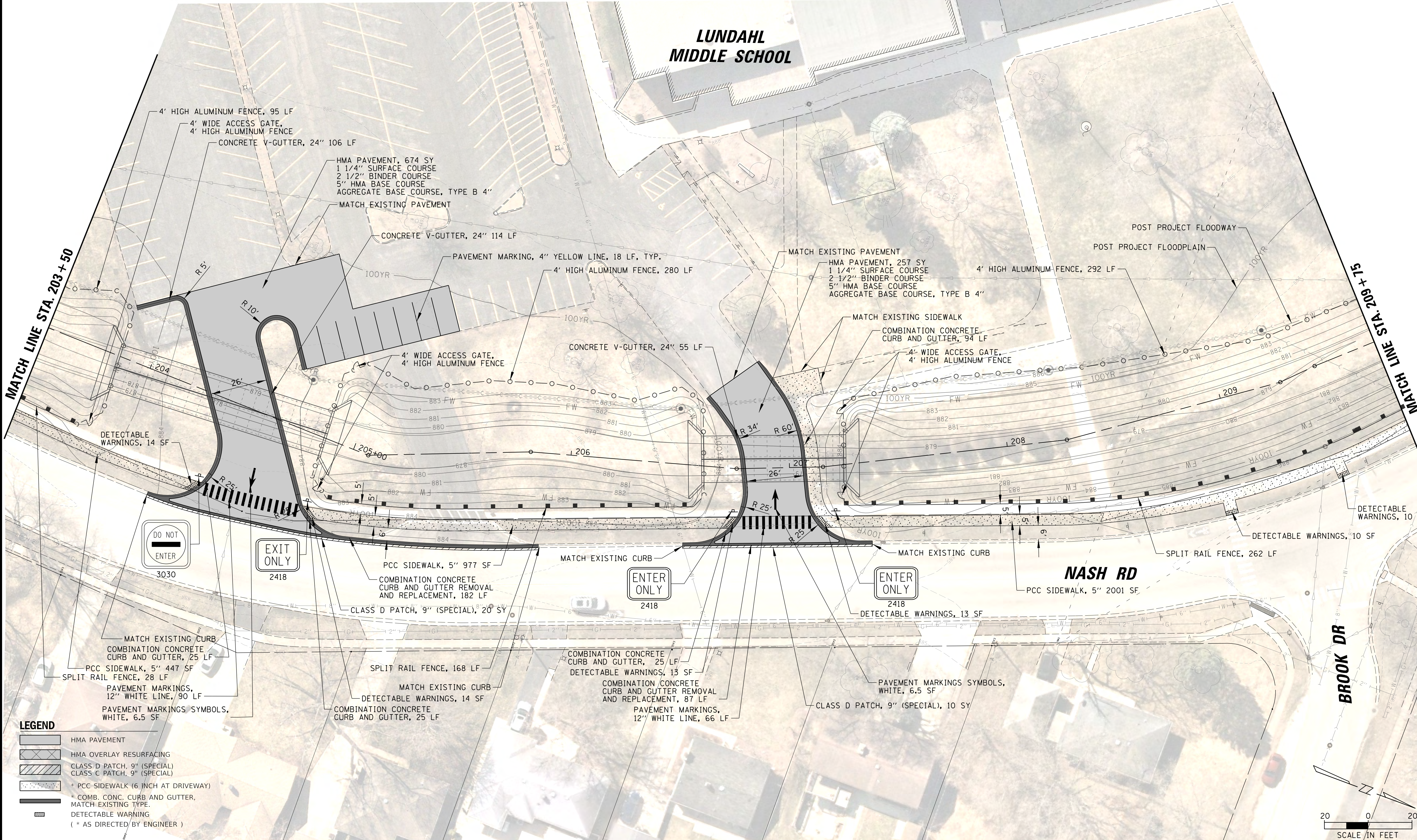
PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 39 OF 93

DRAWING NO.

39



LEGEND

- HMA PAVEMENT
- HMA OVERLAY RESURFACING
- CLASS D PATCH, 9" (SPECIAL)
- CLASS C PATCH, 9" (SPECIAL)
- * PCC SIDEWALK (6 INCH AT DRIVEWAY)
- * COMB. CONC. CURB AND GUTTER, MATCH EXISTING TYPE
- DETECTABLE WARNING
- (* AS DIRECTED BY ENGINEER)

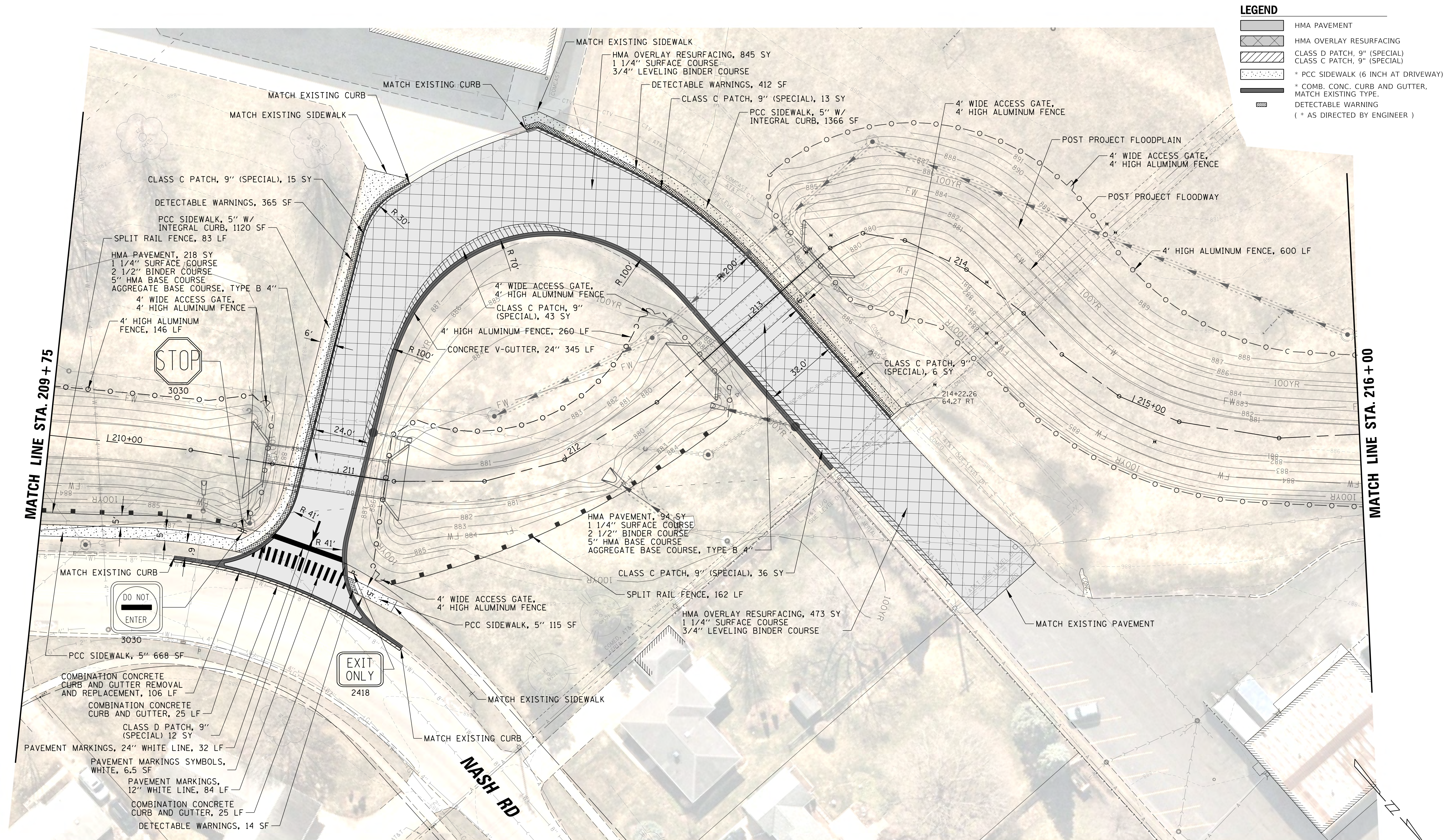
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100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

			DSGN.	JAL	DT0
			DWN.	MAK	
			CHKD.	JGS	WJS
			SCALE:	20'	
			PLOT DATE:	10/6/2025	
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NO.	DATE	NATURE OF REVISION	CHKD.		
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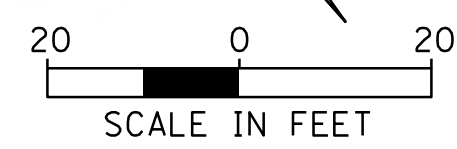
TITLE: **CRYSTAL CREEK DAYLIGHTING PROJECT PHASE 2 PROPOSED IMPROVEMENTS PLAN**

PROJ. NO. 08-0364.55B
DATE: 10/6/2025
SHEET 41 OF 93
DRAWING NO.
41



LEGEND

- HMA PAVEMENT
- HMA OVERLAY RESURFACING
- CLASS D PATCH, 9" (SPECIAL)
- CLASS C PATCH, 9" (SPECIAL)
- * PCC SIDEWALK (6 INCH AT DRIVEWAY)
- * COMB. CONC. CURB AND GUTTER, MATCH EXISTING TYPE.
- DETECTABLE WARNING
- (* AS DIRECTED BY ENGINEER)



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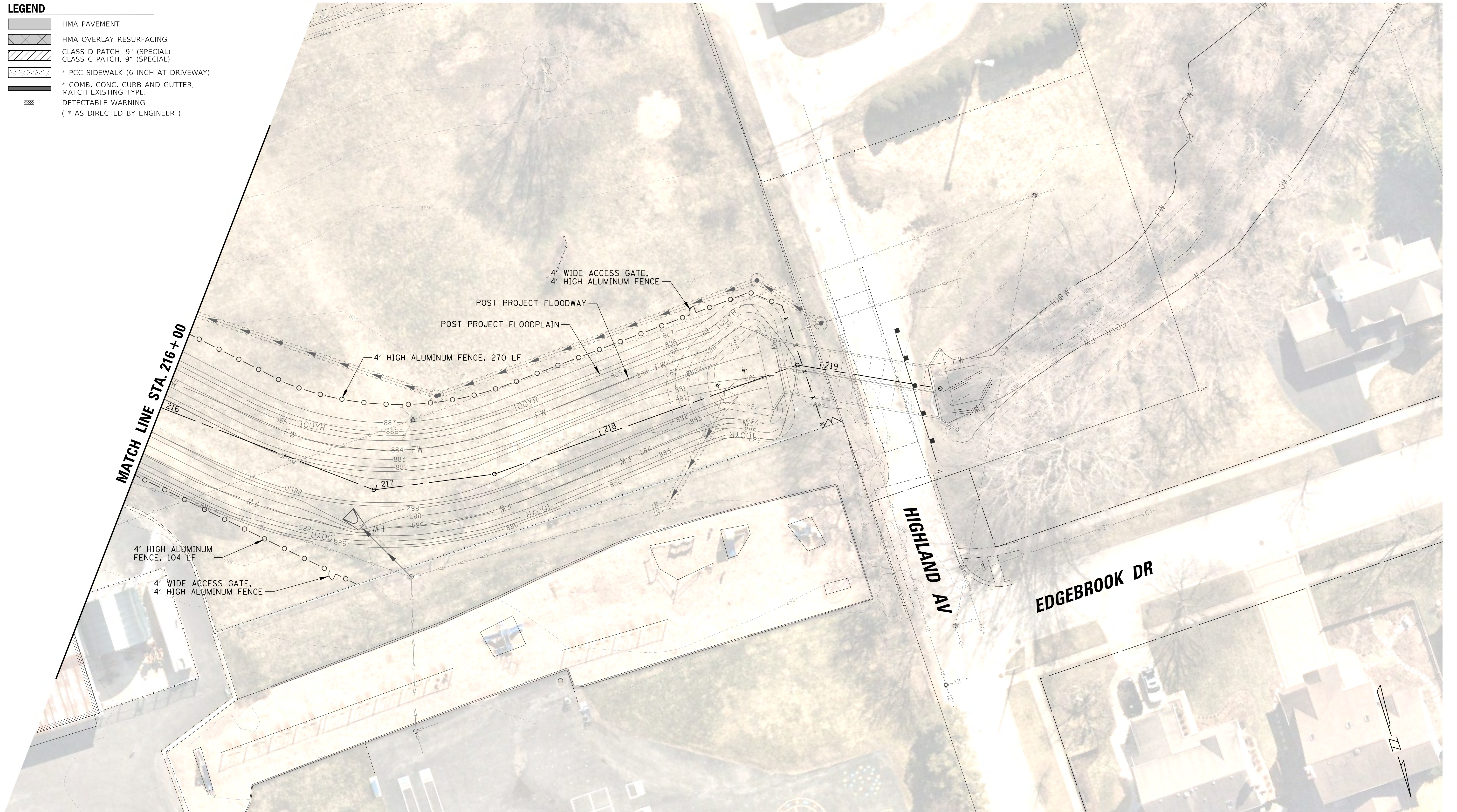
CLIENT:  **CITY OF CRYSTAL LAKE**
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
1	10/6/2025	Initial Design	JAL	DT0
2	10/6/2025	Revised Design	MAK	WJS
3	10/6/2025	Final Design	JGS	WJS
4	10/6/2025	As Built	WJS	WJS
5	10/6/2025	Final As Built	WJS	WJS
6	10/6/2025	Final As Built	WJS	WJS
7	10/6/2025	Final As Built	WJS	WJS
8	10/6/2025	Final As Built	WJS	WJS
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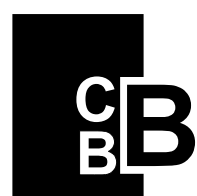
TITLE: **CRYSTAL CREEK DAYLIGHTING PROJECT PHASE 2 PROPOSED IMPROVEMENTS PLAN**

PROJ. NO. 08-0364.55B
DATE: 10/6/2025
SHEET 42 OF 93
DRAWING NO. **42**

- LEGEND**
- HMA PAVEMENT
 - HMA OVERLAY RESURFACING
 - CLASS D PATCH, 9" (SPECIAL)
 - CLASS C PATCH, 9" (SPECIAL)
 - * PCC SIDEWALK (6 INCH AT DRIVEWAY)
 - * COMB. CONC. CURB AND GUTTER, MATCH EXISTING TYPE.
 - DETECTABLE WARNING
 - (* AS DIRECTED BY ENGINEER)



20 0 20
SCALE IN FEET



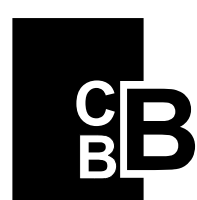
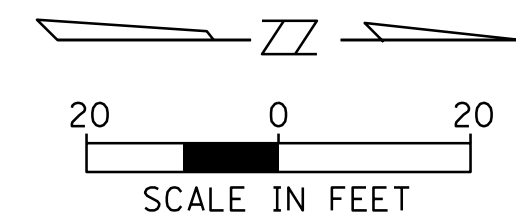
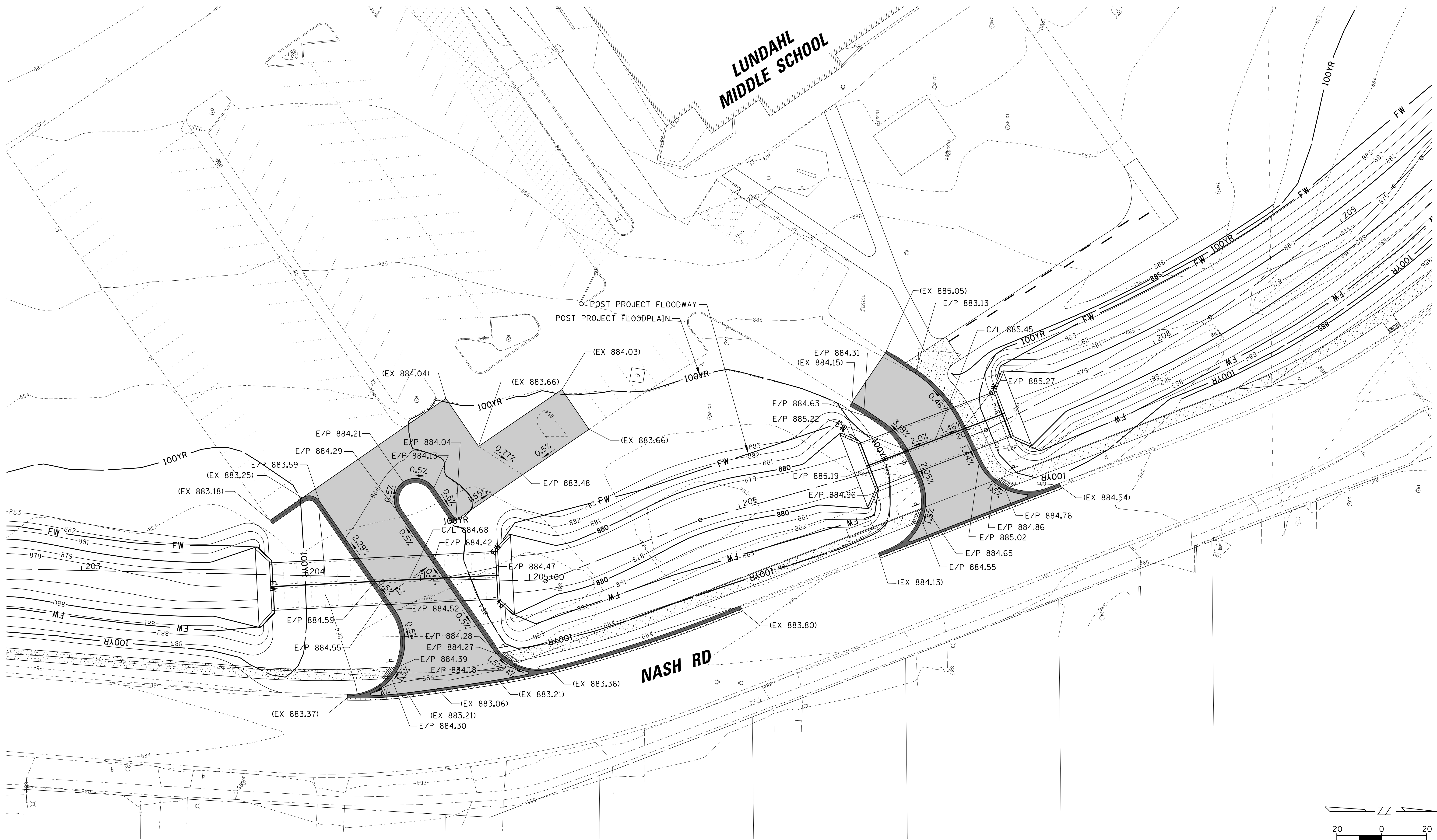
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CRYSTAL LAKE, IL. 60014

				DSGN.	JAL	DTO
				DWN.	MAK	
				CHKD.	JGS	WJS
				SCALE:	20'	
				PLOT DATE:	10/6/2025	
				CAD USER:	mkoonce	
NO.	DATE	NATURE OF REVISION		CHKD.	MODEL:	Default
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - Crystal Creek Daylight\Civil\FH2_PRO_080364.00055_04.dgn					



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100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

				DSGN.	JAL	DT0
				DWN.	MAK	
				CHKD.	JGS	WJS
				SCALE:	20'	
				PLOT DATE:	10/6/2025	
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				MODEL:	Default	
NO.	DATE	NATURE OF REVISION			CHKD.	
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek_Daylighting\Civil\PH2_GRD_080364_00055_01.dgn					

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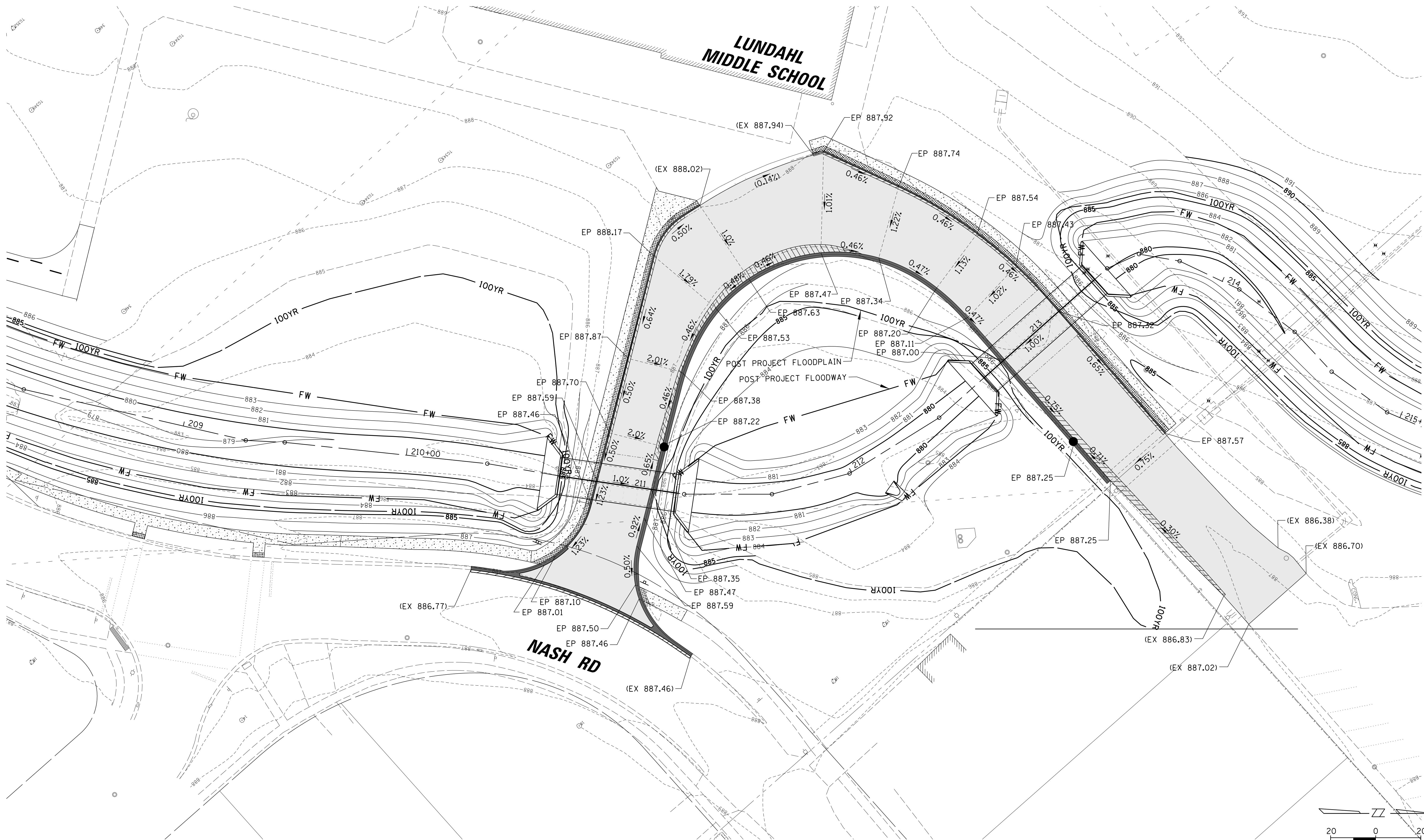
**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 GRADING PLAN**

PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 44 OF 93

DRAWING NO.



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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

			DSGN.	JAL	DTO
			DWN.	MAK	
			CHKD.	JGS	WJS
			SCALE:	20'	
			PLOT DATE:	10/6/2025	
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NO.	DATE	NATURE OF REVISION	CHKD.		
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek Daylight\Civil\PH2.GRD_080364_00055_02.dgn				

TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 GRADING PLAN**

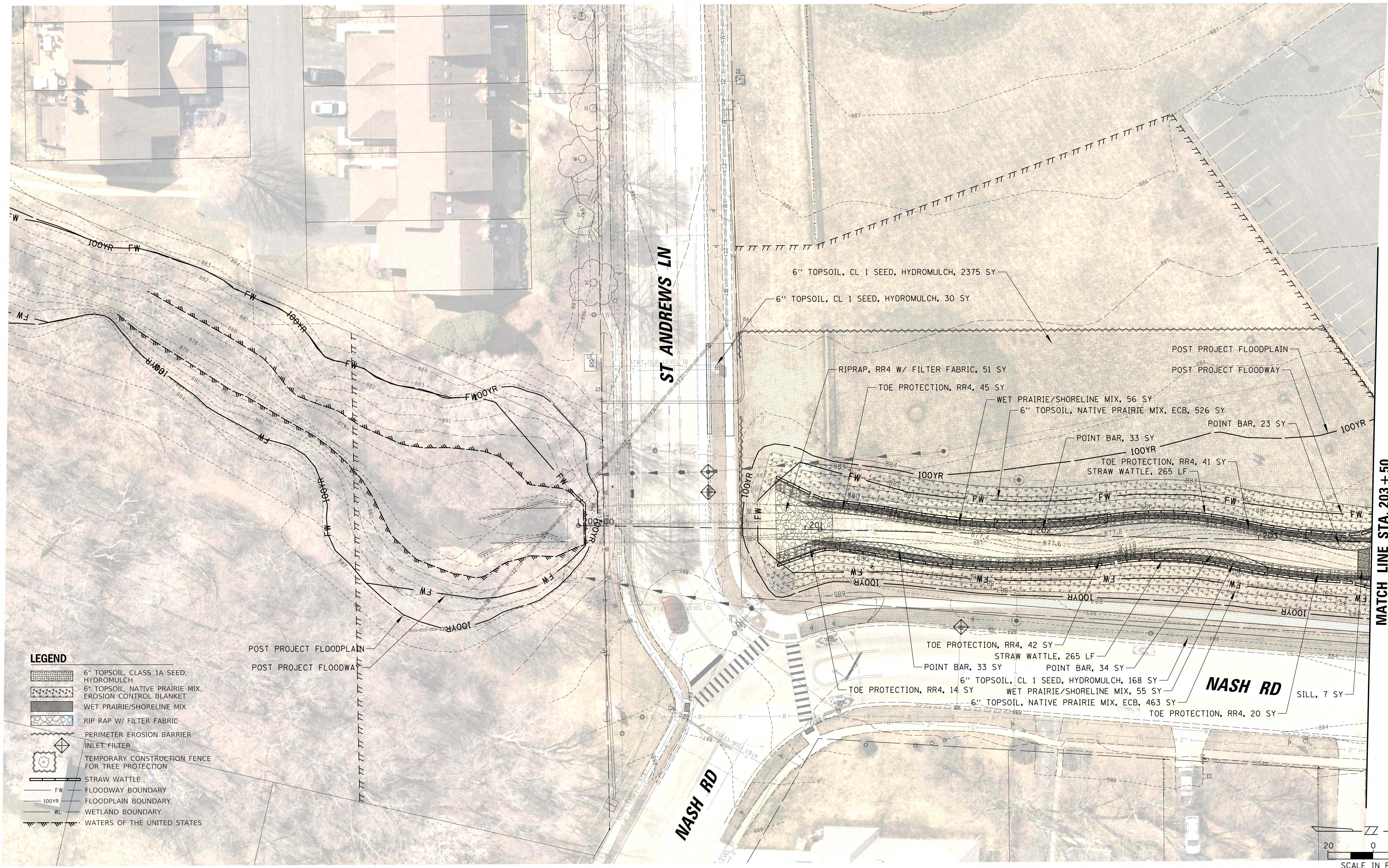
PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 45 OF 93

DRAWING NO.

45



MATCH LINE STA. 203+50



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100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

			DSGN.	JAL	DT0
			DWN.	MAK	
			CHKD.	JGS	WJS
			SCALE:	20'	
			PLOT DATE:	10/6/2025	
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NO.	DATE	NATURE OF REVISION	CHKD.		
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TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 SOIL EROSION
SEDIMENT CONTROL PLAN**

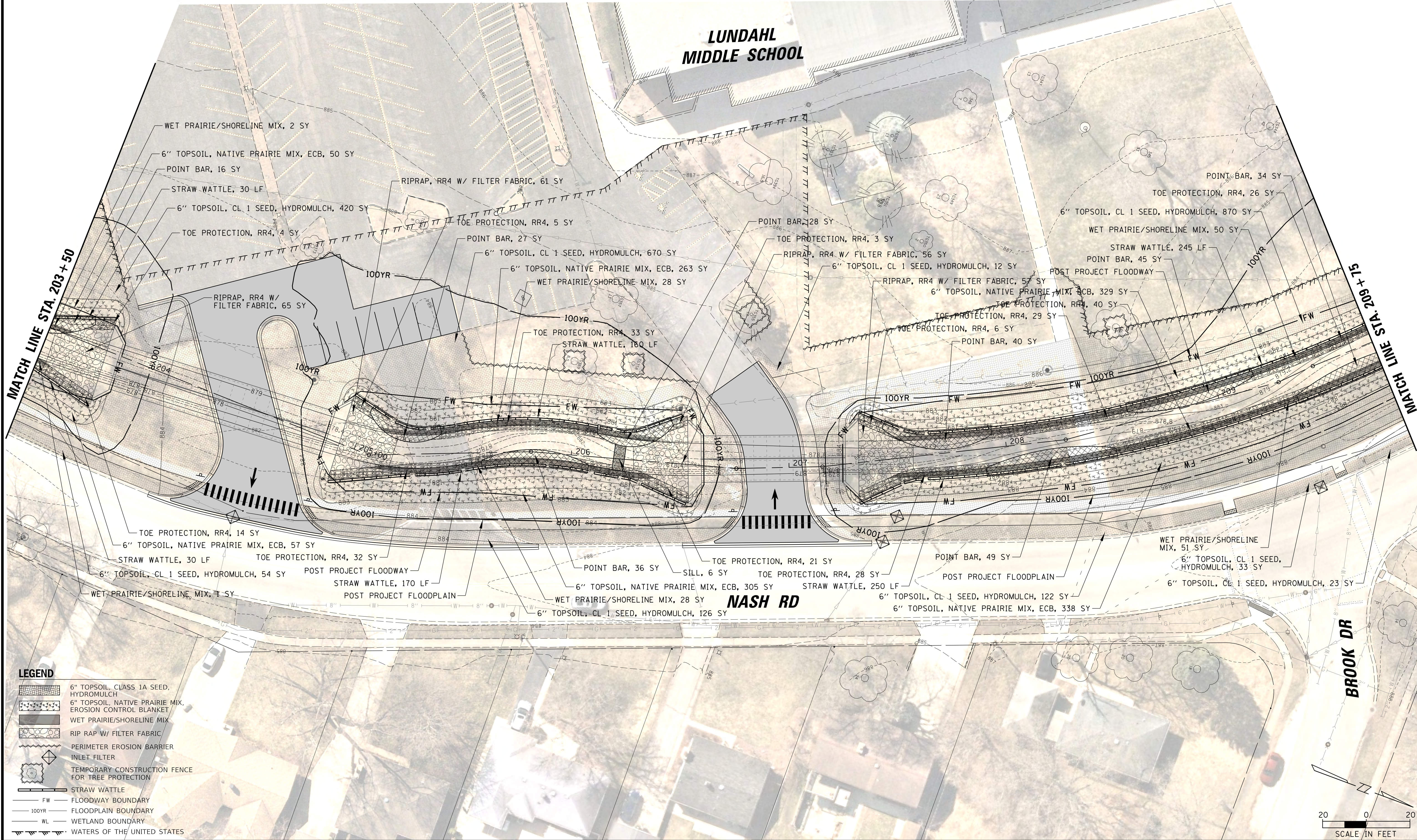
PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 46 OF 93

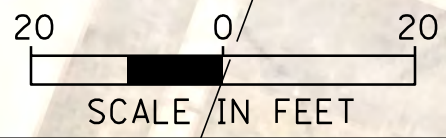
DRAWING NO.

46



LEGEND

- 6" TOPSOIL, CLASS 1A SEED, HYDROMULCH
- 6" TOPSOIL, NATIVE PRAIRIE MIX, EROSION CONTROL BLANKET
- WET PRAIRIE/SHORELINE MIX
- RIP RAP W/ FILTER FABRIC
- PERIMETER EROSION BARRIER
- INLET FILTER
- TEMPORARY CONSTRUCTION FENCE FOR TREE PROTECTION
- STRAW WATTLE
- FW FLOODWAY BOUNDARY
- 100YR FLOODPLAIN BOUNDARY
- WL WETLAND BOUNDARY
- WATERS OF THE UNITED STATES



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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.
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TITLE: **CRYSTAL CREEK DAYLIGHTING PROJECT PHASE 2 SOIL EROSION SEDIMENT CONTROL PLAN**

DSGN.	JAL	DT0
DWN.	MAK	
CHKD.	JGS	WJS
SCALE:	20'	
PLOT DATE:	10/6/2025	
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NO. DATE NATURE OF REVISION CHKD.

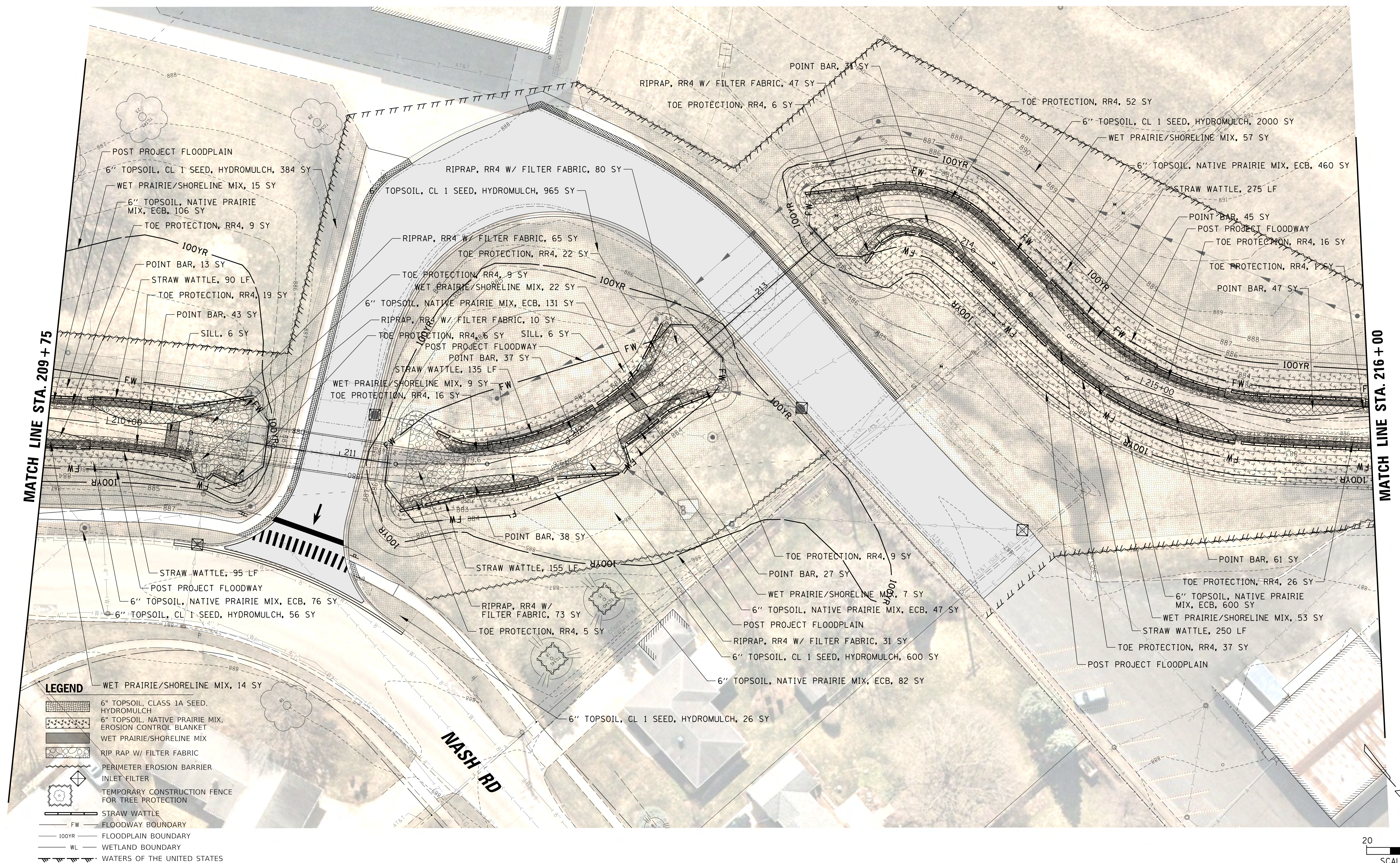
FILE NAME N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek Daylighting\Civil\PH2-ECP_080364.00055.02.dgn

PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 47 OF 93

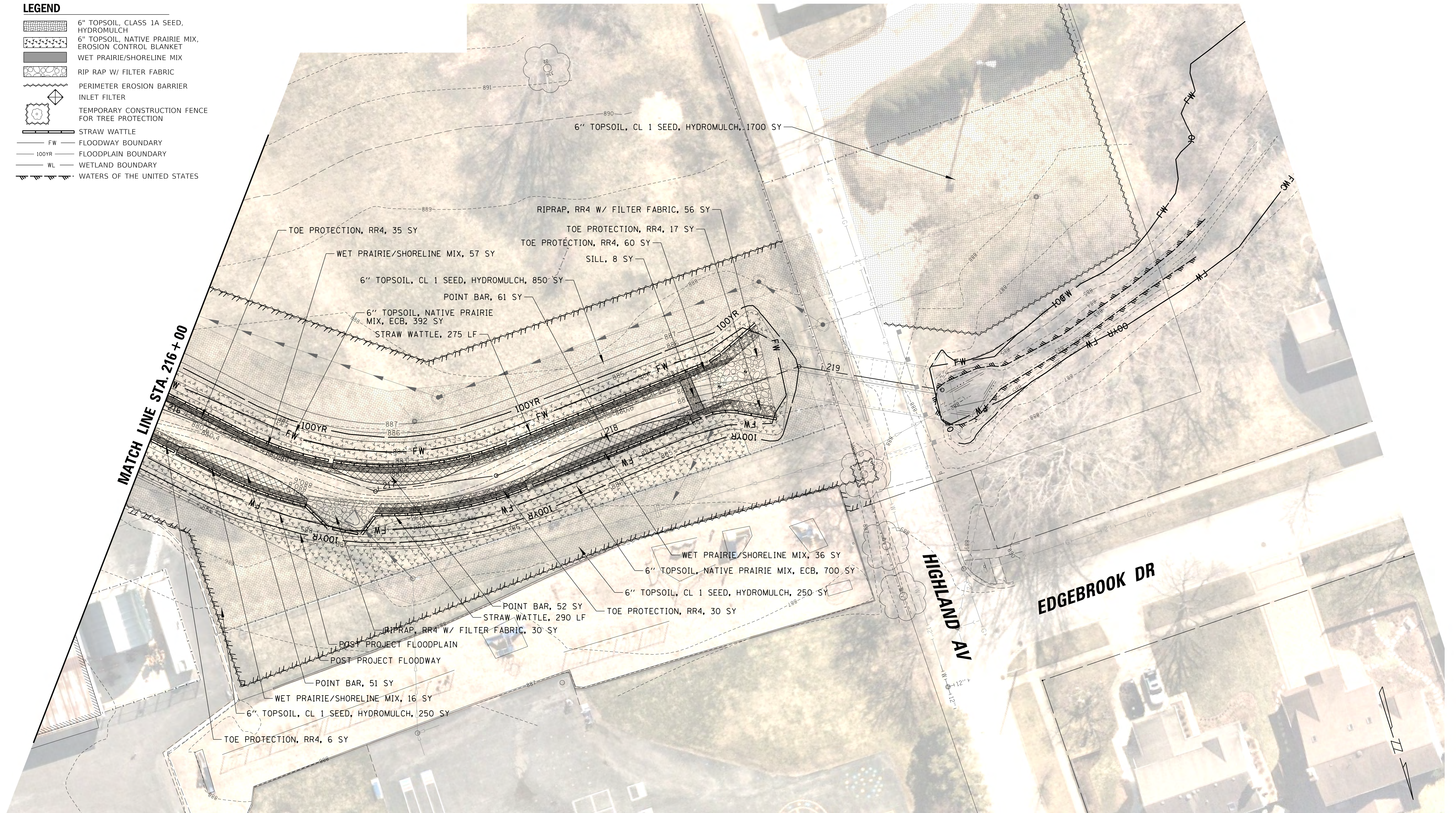
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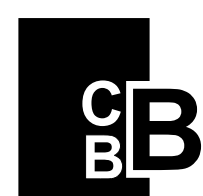
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				CAD USER:	mkoonce	
NO.	DATE	NATURE OF REVISION		CHKD.	MODEL:	Default
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek Daylight\Civil\PH2_ECP_080364_00055_03.dgn					

LEGEND

- 6" TOPSOIL, CLASS 1A SEED, HYDROMULCH
6" TOPSOIL, NATIVE PRAIRIE MIX, EROSION CONTROL BLANKET
WET PRAIRIE/SHORELINE MIX
RIP RAP W/ FILTER FABRIC
PERIMETER EROSION BARRIER
INLET FILTER
TEMPORARY CONSTRUCTION FENCE FOR TREE PROTECTION
STRAW WATTLE
FW FLOODWAY BOUNDARY
100YR FLOODPLAIN BOUNDARY
WL WETLAND BOUNDARY
WATERS OF THE UNITED STATES



20 0 20
SCALE IN FEET



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100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

			DSGN.	JAL	DT0
			DWN.	MAK	
			CHKD.	JGS	WJS
			SCALE:	20'	
			PLOT DATE:	10/6/2025	
			CAD USER:	mkoonce	
			MODEL:	Default	
NO.	DATE	NATURE OF REVISION	CHKD.		
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek_Daylight\Civil\PH2_ECP_080364_00055_04.dgn				

TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 SOIL EROSION
SEDIMENT CONTROL PLAN**

PROJ. NO. 08-0364.55B

DATE: 10/6/2025

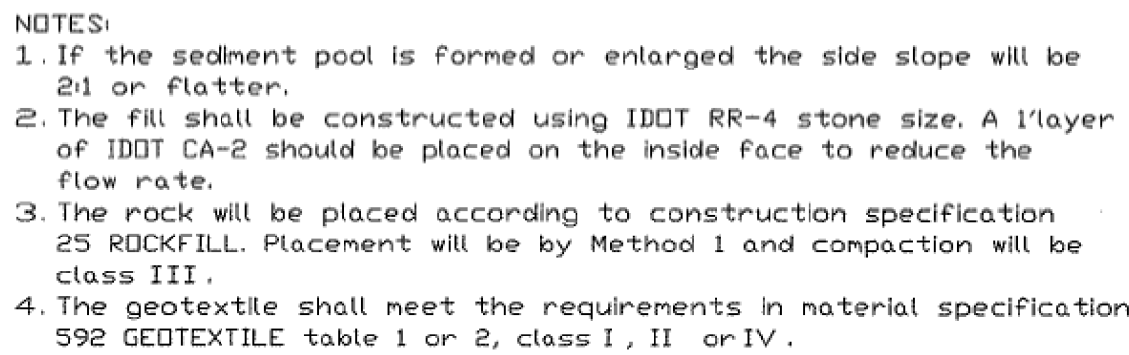
SHEET 49 OF 93

DRAWING NO.

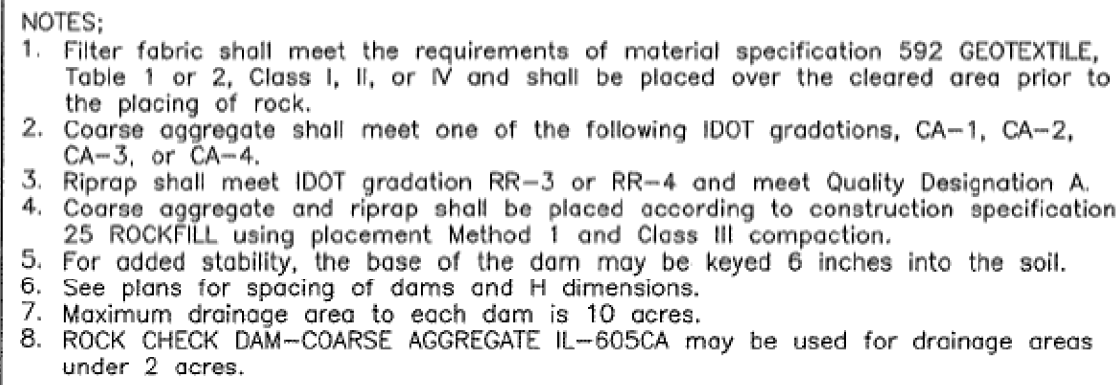
49

2. Soil erosion and sediment control (SESC) features must be constructed prior to the commencement of upland disturbance. Soil disturbance must be phased or enacted in such a manner as to minimize erosion soil stabilization measures must consider the time of year, site conditions and the use of temporary and/or permanent measures.
3. Unless otherwise indicated, all vegetative and structural erosion and sediment control practices will be installed at minimum according to the standards and specifications in the Illinois Urban Manual, revised to latest version as amended. A copy of the approved soil erosion and sediment control (SESC) plan must be maintained on the site at all times.
4. The erosion and sediment controls shown on the plans are the minimum requirements. Additional measures may be required as directed by the Village, or their authorized representative. All additional measures must be in place within 3 days of disturbance and any emergency SESC measures must be installed immediately.
5. The contractor must clean up, grade the work areas as the project progresses, and install erosion protection to eliminate the concentration of runoff, or must install appropriate sediment control devices to trap sediment. Pavement must be cleaned daily or as necessary to remove track-out material.
6. After all perimeter erosion barrier is removed, the areas damaged by the perimeter erosion barrier must be restored.
7. It shall be the responsibility of the contractor to divert all water (ground, storm, and construction) during construction in order to keep the construction areas freed of water, bypass pumping, including silt bags and an energy dissipation surface for the pumps, shall not be measured and paid for separately but shall be considered incidental to the cost of weir structure. It shall be the contractor's responsibility to size the pumps appropriately.
8. During de-watering/pumping operations, only uncontaminated water should be allowed to discharge to protected natural areas, Waters of the State, or to a storm sewer system (in accordance with local permits). Inlet hoses should be placed in a stabilized sump pit or floated at the surface of the water in order to limit the amount of sediment intake. Pumping operations may be discharged to a stabilized area that consists of an energy dissipating device (e.g., stone), sediment filter bag, or both. Adequate erosion and sediment controls should be

14. The Village, or their authorized representative, must make inspections a minimum of once every seven days of the following: 1) disturbed areas of the project site that have not been fully stabilized, 2) structural control measures (Silt fences, etc), and 3) locations where vehicles enter and exit the site. An additional inspection of the items listed above must be made within twenty-four (24) hours of a 0.5-inch or greater rainfall or equivalent snowfall.



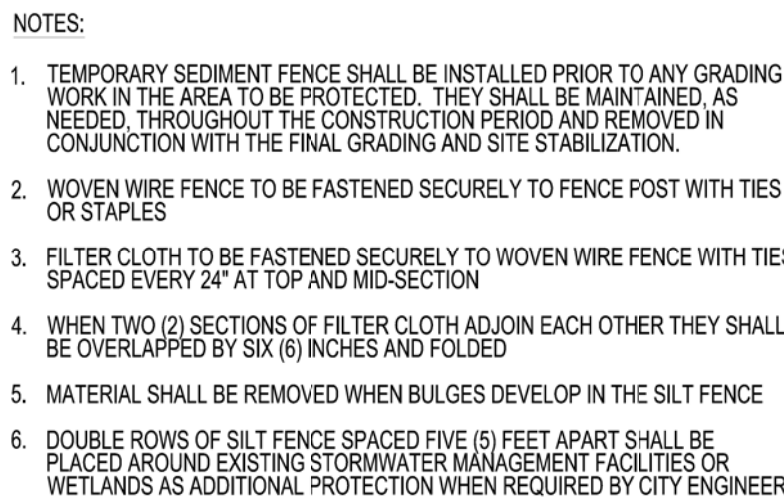
NRCS
Natural Resource Conservation Service



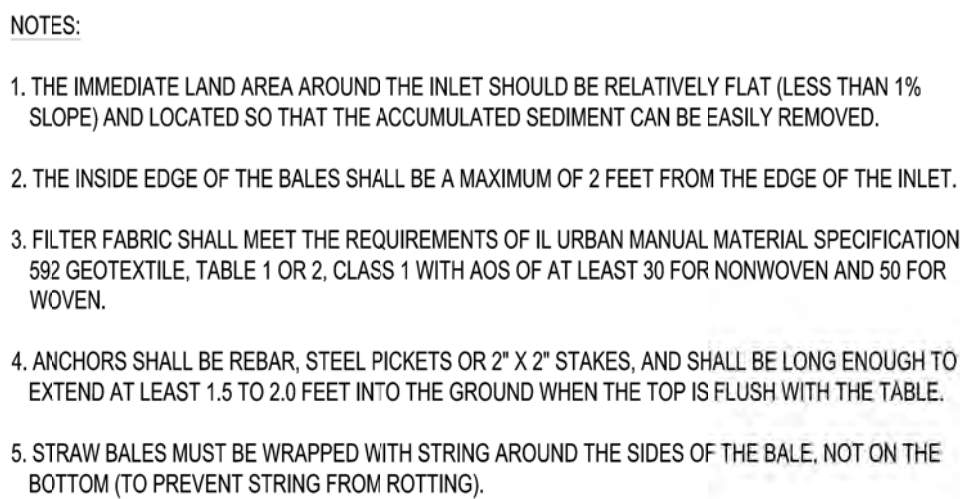
Natural Resources Conservation Service

Notes

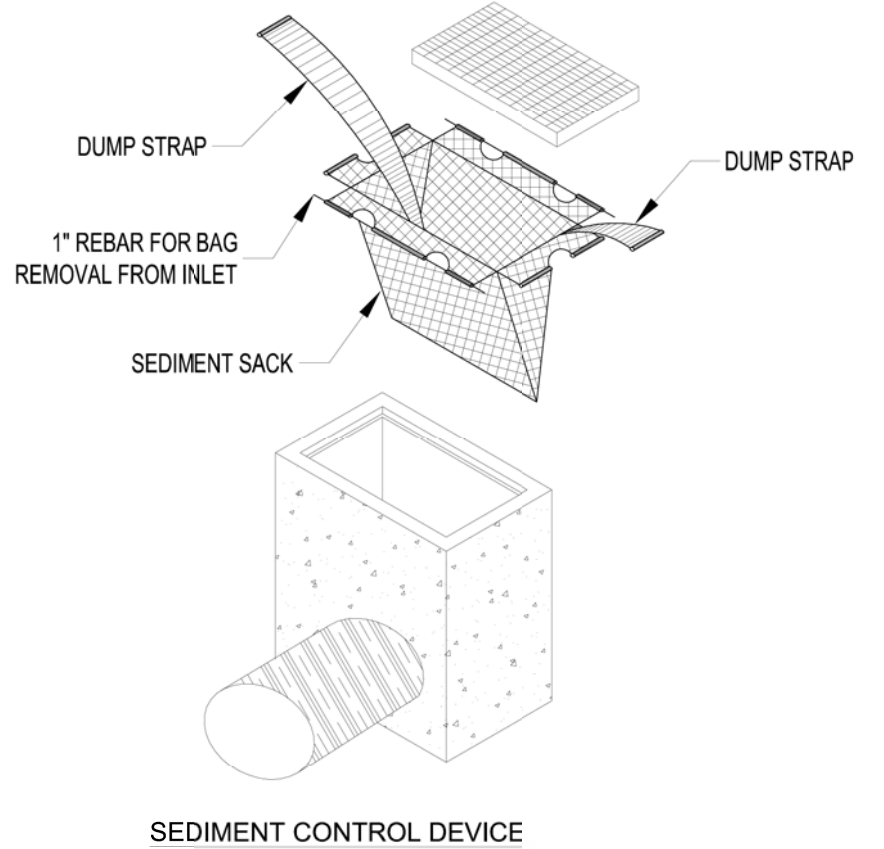
1. Drawings are not to scale.
2. Ends of wattle or rolled exowall shall be turned at least 6" upslope.
3. Recommended stakes are 1 1/8" wide x 1/8" thick x 30' long
4. Stakes shall not extend above the straw wattle more than 2".
5. Spacing: The top of the upstream ditch check shall create a horizontal line with the top of the downstream ditch check.
6. When compost filter sock ditch check is used, place a compost berm upstream of the filter sock (see IUM 805). A trench is not required.



SILT FENCE



INLET PROTECTION STRAW BALE BARRIER

INLET SEDIMENT
CONTROL DEVICE

CRYSTAL CREEK DAYLIGHTING PROJECT SOIL EROSION /SEDIMENT CONTROL NOTES AND DETAILS

PROJ. NO. 08-0364.55B
DATE: 10/6/2025
SHEET 50 OF 93
DRAWING NO.
50

STANDARD DRAIN TILE NOTES:

1. DRAIN TILES DISTURBED DURING THE PROJECT SHALL BE RECONNECTED BY THOSE RESPONSIBLE FOR THEIR DISTURBANCE, UNLESS THE ENGINEERING PLANS SPECIFY ABANDONMENT OF THE DRAIN TILES.
2. DRAIN TILES WITHIN THE DISTURBED AREA OF THE PROJECT SITE SHALL BE REPLACED, BYPASSED, OR INTERCEPTED AND CONNECTED TO THE STORMWATER MANAGEMENT SYSTEM FOR THE PROJECT. THE SIZE OF THE REPLACED OR BYPASSED DRAIN TILE SHALL BE EQUIVALENT TO THE EXISTING DRAIN TILE.

NOTE:
ADDITIONAL DETAILS HAVE BEEN INCLUDED ON THE SESC DETAIL SHEETS FOR USE IN THE FIELD AS DETERMINED BY THE ENGINEER; HOWEVER, LOCATIONS OF THESE ITEMS MAY NOT BE SHOWN ON THE PLAN SHEETS.

PROPOSED NATIVE PRAIRIE AND WET PRAIRIE/ShORELINE MIXES

Native Prairie Mix		
Permanent Grasses / Sedges		
Scientific Name	Common Name	Oz./Acre
Bouteloua curtipendula	Side-Oats Grama	32
Carex spp.	Prairie Sedge Mix	4
Elymus canadensis	Canada Wild Rye	64
Koeleria pyramidata	June Grass	4
Panicum virgatum	Switch Grass	4
Schizachyrium scoparium	Little Bluestem	96
	Total Oz./Acre	204

Temporary Cover		Oz./Acre
Avena sativa	Common Oat	960

Forbs		Oz./Acre
Anemone cylindrica	Thimbleweed	1
Asclepias tuberosa	Butterfly Weed	4
Aster ericoides	Heath Aster	0.5
Aster laevis	Smooth Blue Aster	1.5
Aster novae-angliae	New England Aster	0.5
Baptisia lactea	White Wild Indigo	4
Chamaecrista fasciculata	Partridge Pea	30
Coreopsis palmata	Prairie Coreopsis	2
Dalea candida	White Prairie Clover	3
Dalea purpurea	Purple Prairie Clover	3
Echinacea purpurea	Broad-Leaved Purple Coneflower	14
Eryngium yuccifolium	Rattlesnake Master	2.5
Lespedeza capitata	Round-Headed Bush Clover	4
Liatis aspera	Rough Blazing Star	1
Monarda fistulosa	Wild Bergamot	2
Parthenium integrifolium	Wild Quinine	3
Penstemon digitalis	Foxglove Beard Tongue	2
Pycnanthemum virginianum	Common Mountain Mint	3
Ratibida pinnata	Yellow Coneflower	8
Rudbeckia hirta	Black-Eyed Susan	8
Rudbeckia subtomentosa	Sweet Black-Eyed Susan	8
Solidago nemoralis	Old-Field Goldenrod	1
Solidago rigida	Stiff Goldenrod	1
Vernonia spp.	Ironweed Mix	2
Veronicastrum virginicum	Culver's Root	0.5
	Total Oz./Acre	109.5

All native seed mixes shall be installed with a granular form of endomycorrhizal inoculant at the rate specified per acre by the manufacturer.

Crystal Creek Wet Prairie/Shoreline Mix		
Botanical Name	Common Name	Oz./Acre
Permanent grasses / Sedges / Rushes		
Calamagrostis canadensis	Bluejoint Grass	2
Carex cristatella	Crested Oval Sedge	2
Carex lurida	Bottlebrush Sedge	2
Carex vulpinoidea	Brown Fox Sedge	2
Elymus virginicus	Virginia Wild Rye	24
Glyceria striata	Fowl Manna Grass	2
Juncus effusus	Common Rush	1
Juncus torreyi	Torrey's Rush	0.25
Leersia oryzoides	Rice Cut Grass	2
Panicum virgatum	Switch Grass	6
Scirpus atrovirens	Dark Green Rush	1
Scirpus cyperinus	Wool Grass	0.5
Scirpus fluviatilis	River Bulrush	4
Scirpus validus	Great Bulrush	6
Spartina pectinata	Prairie Cord Grass	1
	Total Oz./Acre	55.75

Forbs	Common Name	Oz./Acre
Alisma spp.	Water Plantain Mix	4.25
Asclepias incarnata	Swamp Milkweed	2
Bidens spp.	Bidens Mix	4
Helenium autumnale	Sneezeweed	2
Lycopus americanus	Common Water Horehound	0.25
Mimulus ringens	Monkey Flower	1
Penthorum sedoides	Ditch Stonecrop	0.5
Polygonum pensy.	Pinkweed	4
Rudbeckia sub.	Sweet Black-Eyed Susan	2
Sagittaria latifolia	Common arrowhead	1
Senna hebecarpa	Wild Senna	2
Symphytotrichum lanceolatum	Panicled Aster	0.5
Symphytotrichum novae-angliae	New England Aster	0.5
Thalictrum das.	Purple Meadow Rue	2
	Total Oz./Acre	26

Temporary Cover		
Avena sativa	Common Oat	512

All native seed mixes shall be installed with a granular form of endomycorrhizal inoculant at the rate specified per acre by the manufacturer.

Inoculant Requirements

Seed

All native seed mixes shall be combined with an appropriate endomycorrhizal inoculant such as AM 120 Mycorrhizal Inoculum (or comparable). The inoculants shall contain a diverse mixture of glomales fungal species (Glomus spp.) in pelletized form. Application rate shall be as specified by the manufacturer. Seed shall be mixed with a granular form of endomycorrhizal inoculant at the rate specified by the manufacturer.

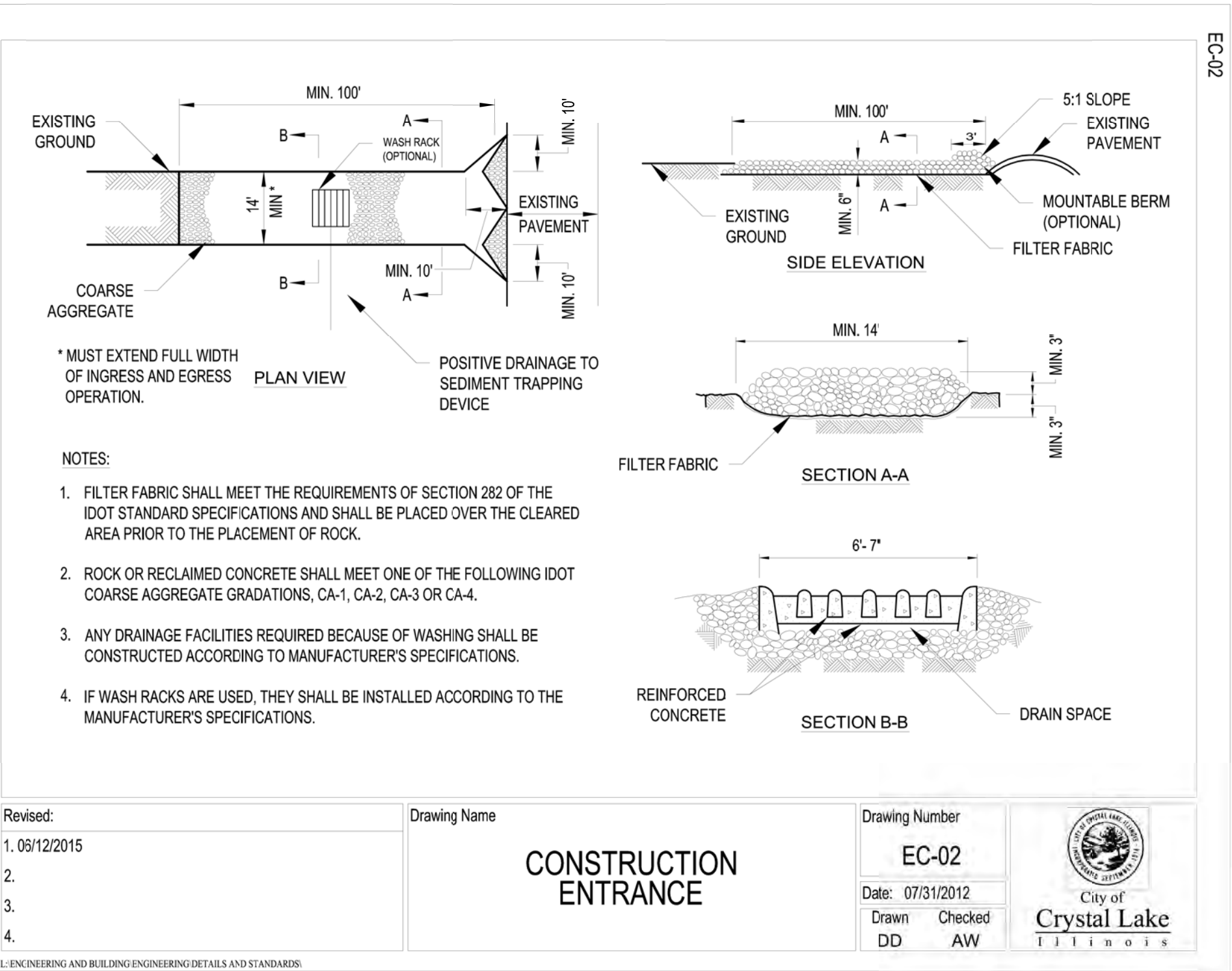
BLANDING'S TURTLE

IDNR – BLANDING'S TURTLES NOTES

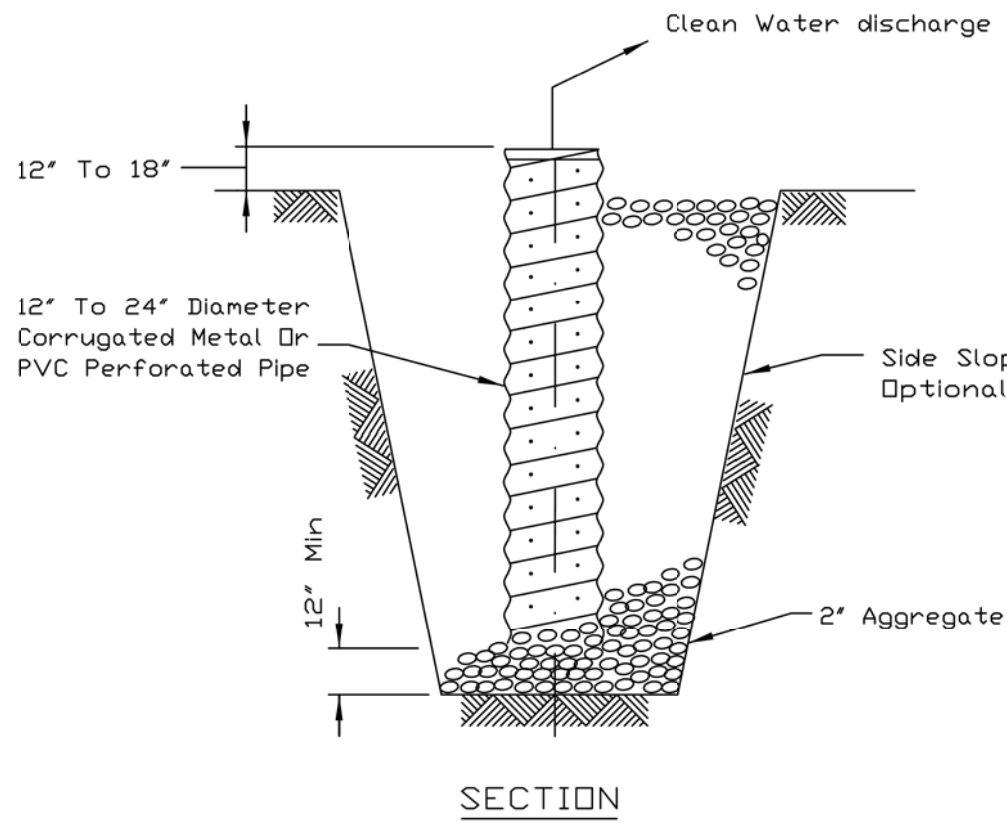
RECORDS OF THE STATE-ENDANGERED BLANDING'S TURTLE EXIST IN THE PROJECT AREA. TO AVOID IMPACTS TO THIS SPECIES, THE ILLINOIS DEPARTMENT OF NATURAL RESOURCES RECOMMENDS THE FOLLOWING:

- EDUCATE PERSONNEL WORKING ONSITE ABOUT THE BLANDING'S TURTLE. POST PHOTOS OF ADULT AND JUVENILE BLANDING'S TURTLES, AND LIFE-HISTORY INFORMATION, AT A CENTRAL LOCATION, AND SHALL BE DISTRIBUTED TO PERSONNEL. THE FLIER SHOULD ALSO CONTAIN CONTACT INFORMATION FOR THE DEPARTMENT (BRAD SEMEL, NATURAL HERITAGE DIVISON, (630-399-3242).
- INSTALL EXCLUSIONARY FENCING BY THE END OF APRIL AND MAINTAIN IT THROUGH JUNE (IF NEEDED) TO PREVENT TURTLES FROM ENTERING THE CONSTRUCTION AREA.
- CONDUCT DAILY INSPECTIONS DURING CONSTRUCTION TO ENSURE THAT EXCLUSIONARY FENCING IS PROPERLY INSTALLED (DUG INTO THE GROUND) AND TO CHECK IF TURTLES ARE PRESENT.
- TRENCHES AND EXCAVATIONS SHOULD BE COVERED AT THE END OF THE WORK DAY. BEFORE STARTING EACH WORK DAY, TRENCHES AND EXCAVATIONS SHOULD BE ROUTINELY INSPECTED TO ENSURE NO TURTLES (OR OTHER AMPHIBIANS AND REPTILES) HAVE BECOME TRAPPED WITHIN THEM.
- IF BLANDING'S TURTLES ARE ENCOUNTERED, CONTACT ABIGAIL WILGREEN, CITY OF CRYSTAL LAKE CITY ENGINEER AT (815) 356-3605.

ALL WORK ASSOCIATED WITH THE ABOVE ITEMS, INCLUDING EXLUSIONARY FENCING, INSPECTIONS, AND EDUCATIONAL PHOTOS/SIGNAGE, SHALL NOT BE PAID FOR SEPARATELY AS STATED IN THE "ENVIRONMENTAL PROTECTION" SPEC.



SUMP PIT PLAN

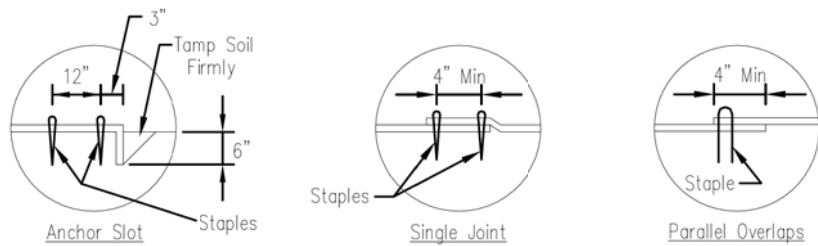
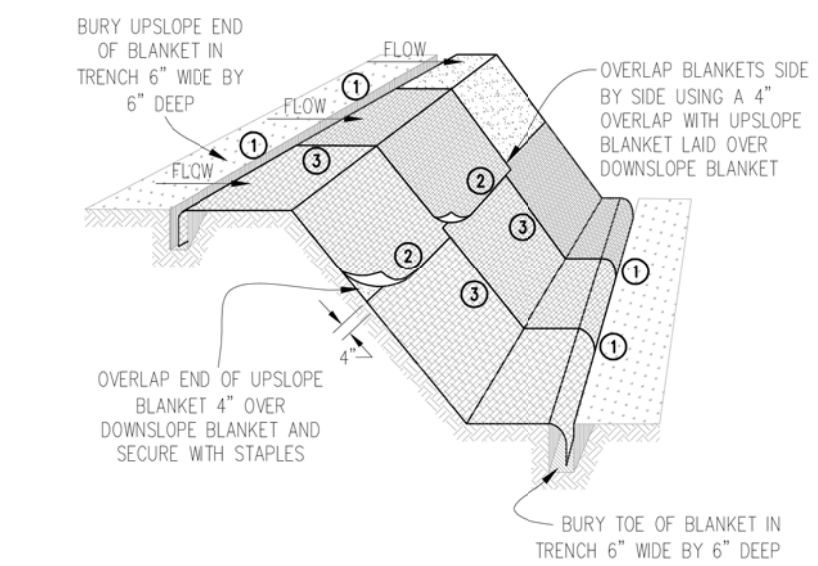


- NOTES:
1. Pit dimensions are optional.
2. The standpipe will be constructed by perforating a 12"-24" diameter corrugated metal or PVC pipe.
3. A base of 2" aggregate will be placed in the pit to a minimum depth of 12". After installing the standpipe, the pit surrounding the standpipe will then be backfilled 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 _____ Checked _____ Approved _____	DATE _____	DATE _____	DATE _____
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STANDARD DWG. NO. IL-650 SHEET 1 OF 1 DATE 8-11-94
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- NOTES:
1. Staples shall be placed in a diamond pattern at 2 per s.y. for stitched blankets. Non-stitched shall use 4 staples per s.y. of material. This equates to 200 staples with stitched blanket and 400 staples with non-stitched 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.

DESIGNED: _____ CHECKED: _____ APPROVED: _____	DATE: _____
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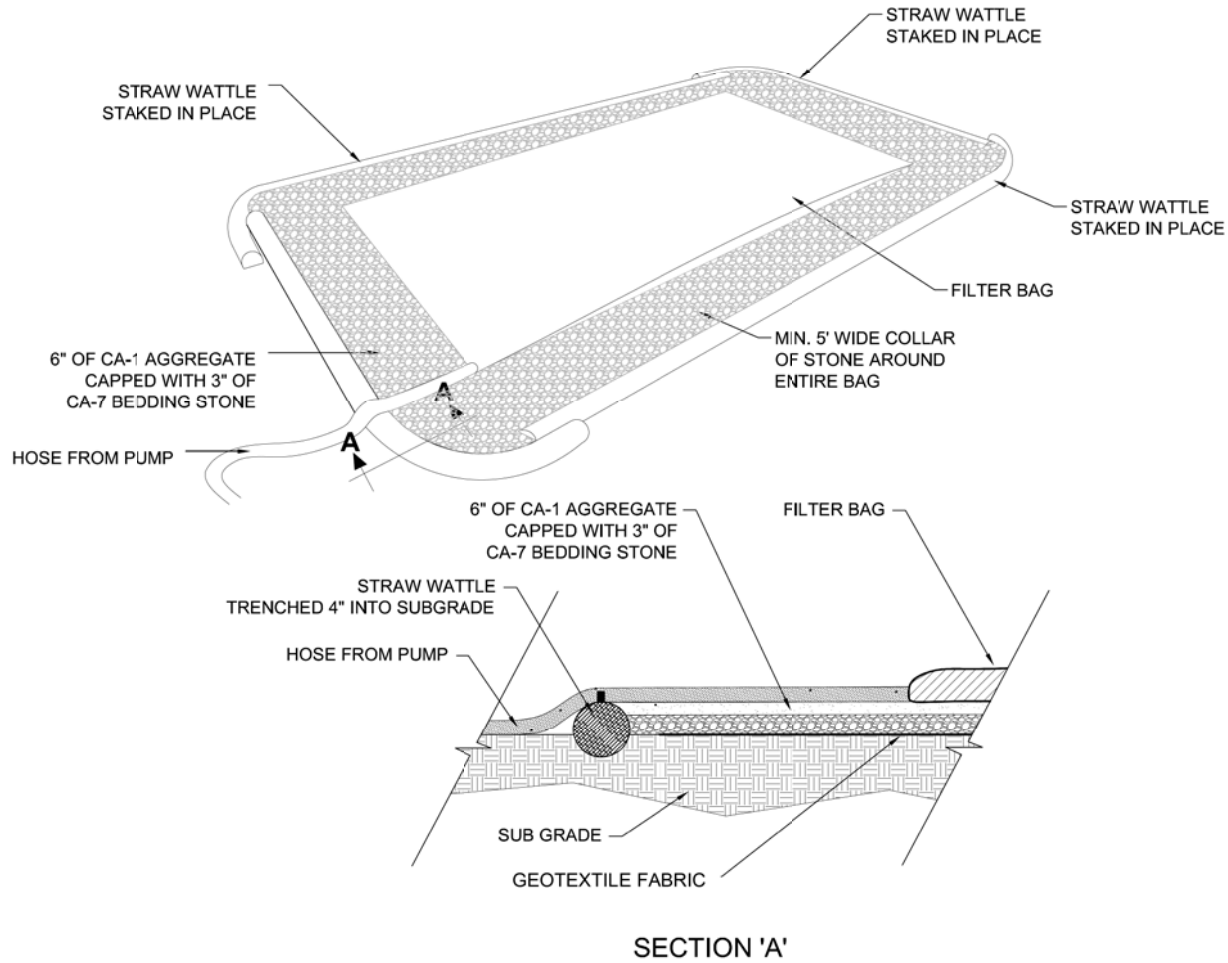
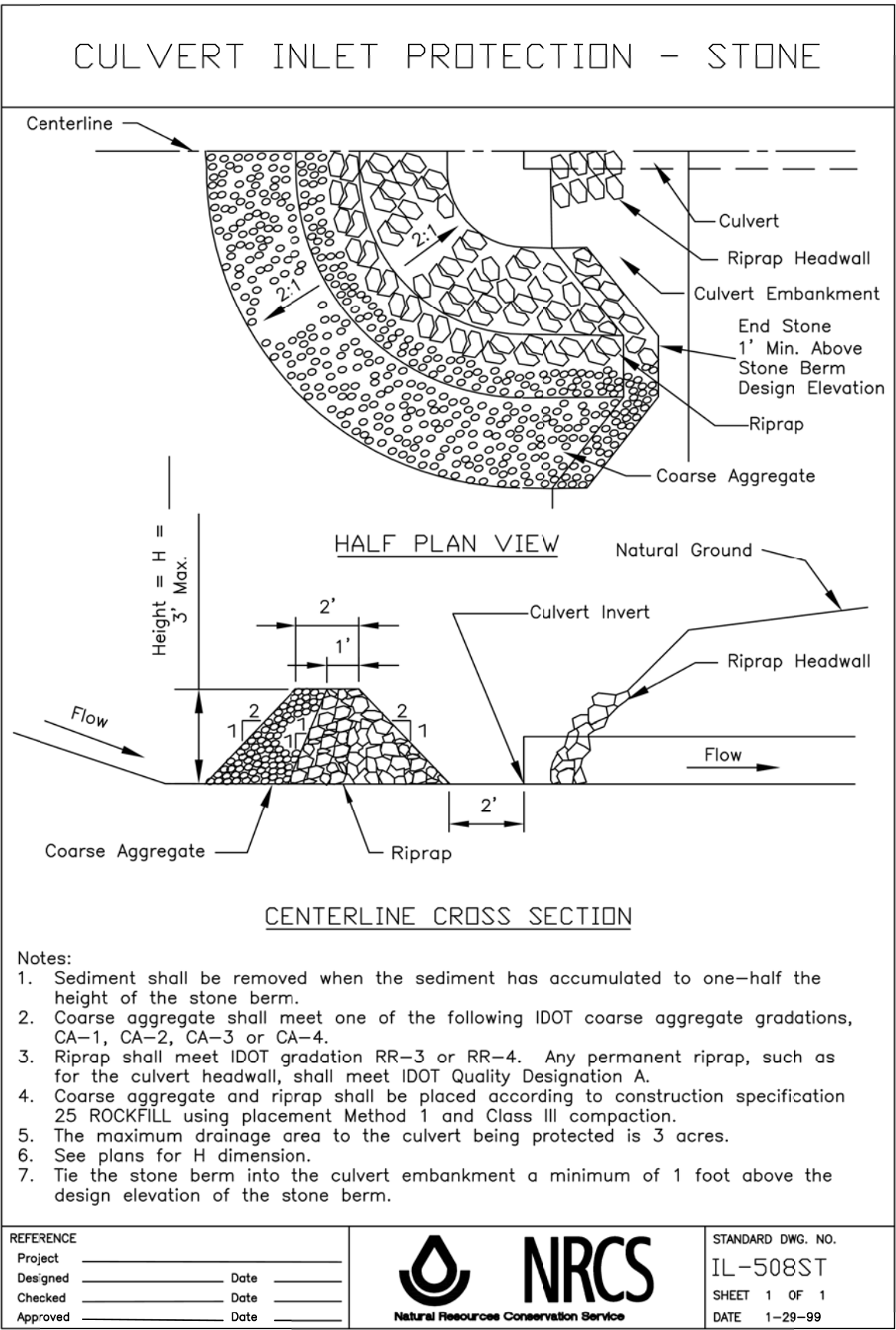
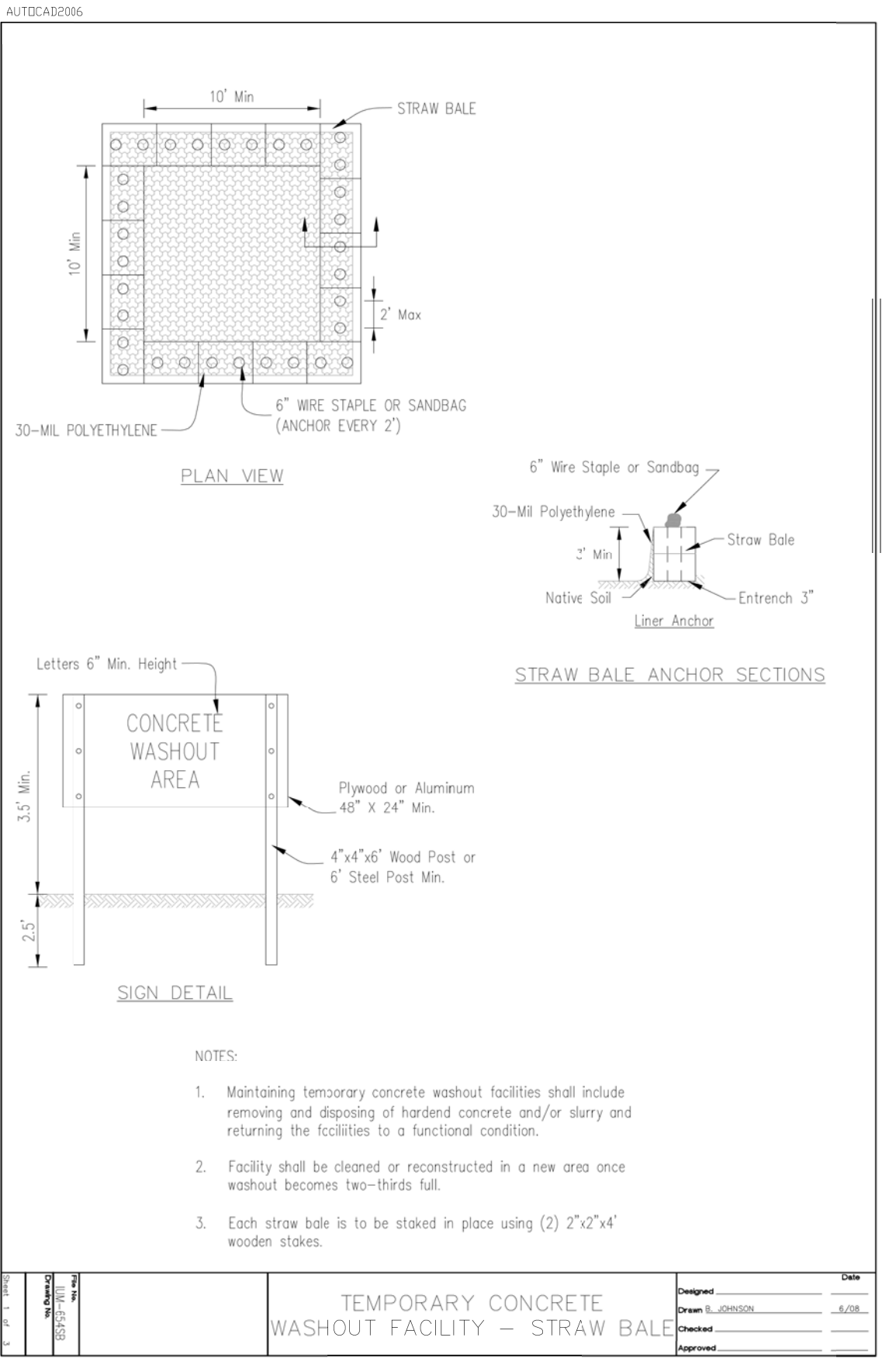
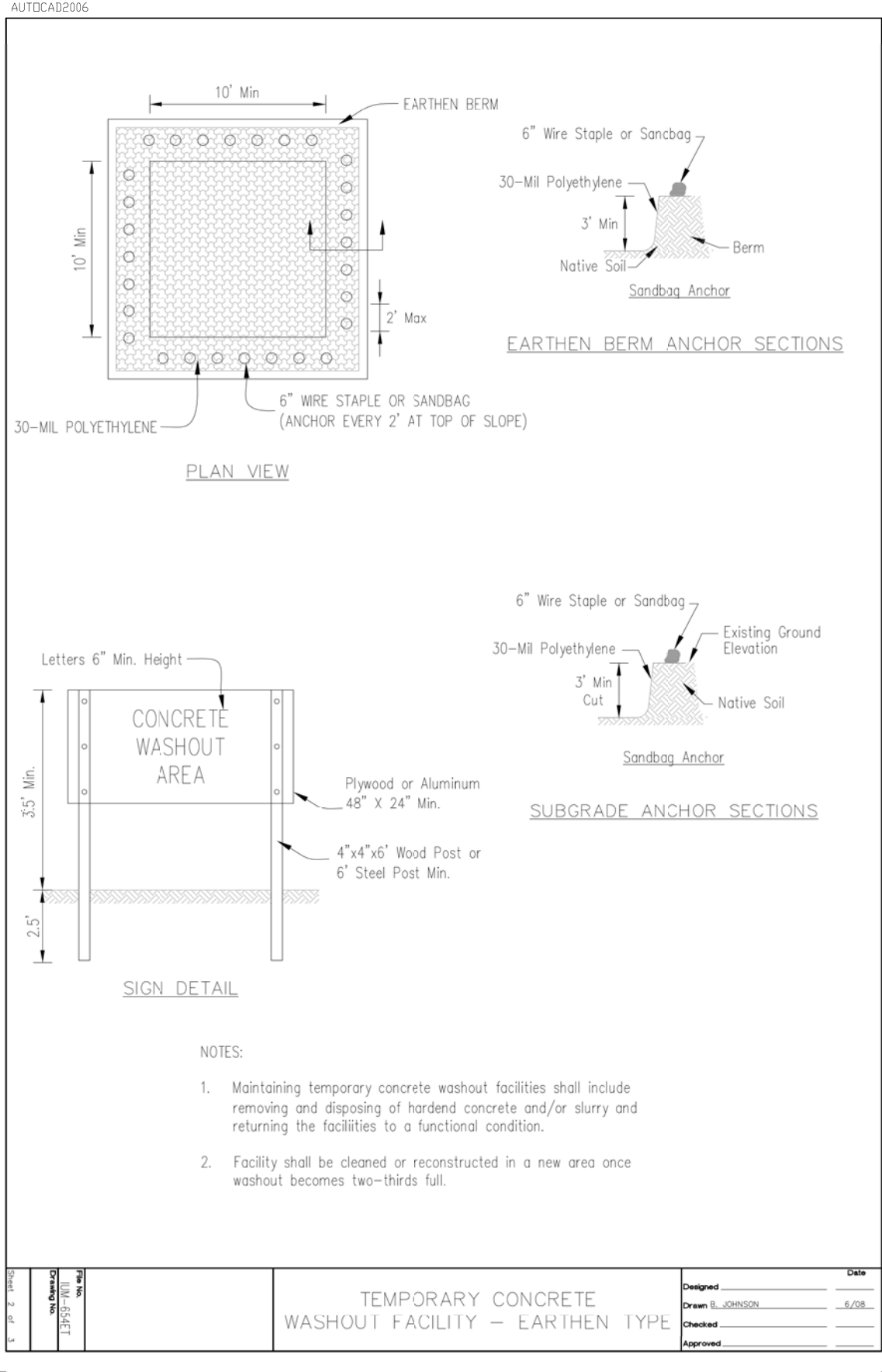
CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

DSGN.	JAL	DT0
DWN.	MAK	
CHKD.	JGS	WJS
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PLOT DATE:	10/6/2025	
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NO.	DATE	NATURE OF REVISION
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek Daylight\Civil\SESC_080364.00055.02.dgn	

TITLE:	CRYSTAL CREEK DAYLIGHTING PROJECT SOIL EROSION /SEDIMENT CONTROL NOTES AND DETAILS	PROJ. NO. 08-0364.55B
		DATE: 10/6/2025
		SHEET 51 OF 93
		DRAWING NO. 51



McHenry County Standard SESC Notes

- Control measures shall meet the minimum standards and specifications of the *Illinois Urban Manual* (www.aiswcd.org/IUM) unless stated otherwise.
- Soil disturbance shall be conducted in such a manner as to minimize erosion. Areas of the development site that are not to be disturbed shall be protected from construction traffic or other disturbance until final stabilization is achieved.
- 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 and 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 temporarily 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 not later than 14 calendar days from the initiation of stabilization work in an area. Exceptions to these time frames are specified below:
 - Where 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 steep slopes shall be minimized. Areas or embankments having slopes steeper than 3:1 shall be stabilized with staked in place sod, erosion control blanket in combination with seeding, or an 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 stormwater management 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, discharges shall be routed through an effective sediment control measure (e.g. sediment trap or an equivalent control measure). The Enforcement Officer shall be notified prior to the commencement of dewatering activities.
- All temporary soil erosion and sediment control measures shall be removed within 30 days after final stabilization of the development site is achieved or after the temporary measures are no longer necessary. Trapped sediment shall be removed and disturbed 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; and
 - 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 stormwater.
- Adequate receptacles shall be provided for the depositing of all construction material debris generated during the development process. The applicant 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.
- The Enforcement Officer may require additional or alternate soil erosion and sediment control measures, based on development site specific considerations and the effectiveness of the installed control measures.

Standard Drain Tile Notes

- Drain tiles disturbed during regulated development shall be reconnected by those responsible for their disturbance, unless the development plans specify abandonment of the drain tiles.
- All abandoned drain tiles within disturbed areas shall be removed in their entirety.
- Drain tiles within the disturbed area of a development site shall be replaced, bypassed around the development site or intercepted and connected to the stormwater management system for the development site. The size of the replaced or bypassed drain tile shall be equivalent to the existing drain tile.

USACE Notes

THE CONTRACTOR SHALL WORK WITH THE CITY /ENGINEER TO NOTIFY THE USACE AT LEAST TEN (10) DAYS PRIOR TO THE COMMENCEMENT OF WORK INDICATING THE START DATE AND ESTIMATED END OF CONSTRUCTION.



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9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

				DSGN.	JAL	DT0
				DWN.	MAK	
				CHKD.	JGS	WJS
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FILE	NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek Daylight\Civil\SESC_080364.00055.02.dgn				

TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
SOIL EROSION /SEDIMENT CONTROL
NOTES AND DETAILS**

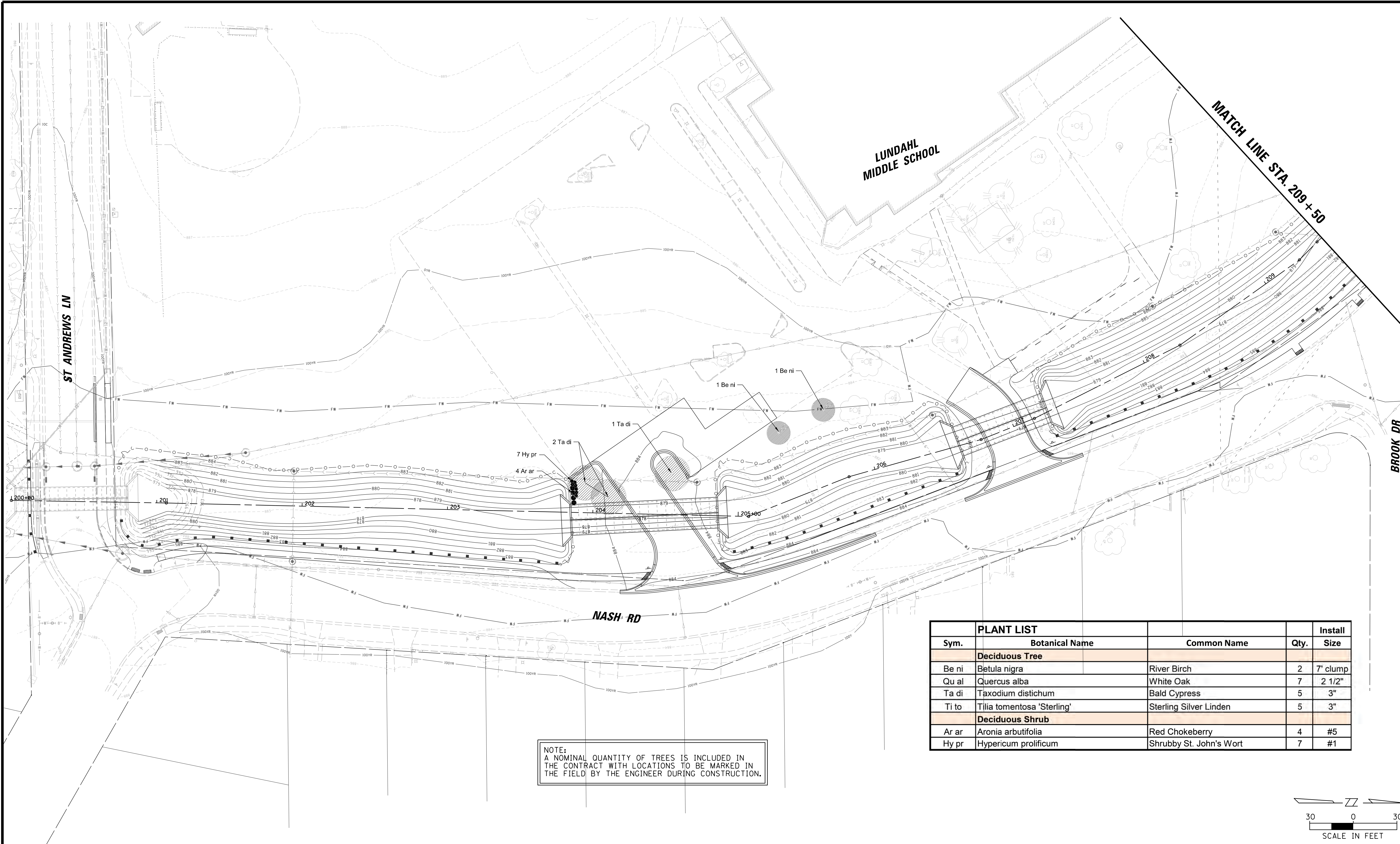
PROJ. NO. 08-0364.55B

DATE: 10/6/2025

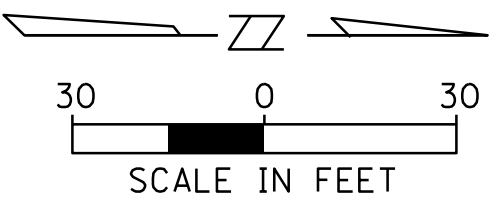
SHEET 52 OF 93

DRAWING NO.

52



PLANT LIST				
Sym.	Botanical Name	Common Name	Qty.	Install Size
Deciduous Tree				
Be ni	Betula nigra	River Birch	2	7' clump
Qu al	Quercus alba	White Oak	7	2 1/2"
Ta di	Taxodium distichum	Bald Cypress	5	3"
Ti to	Tilia tomentosa 'Sterling'	Sterling Silver Linden	5	3"
Deciduous Shrub				
Ar ar	Aronia arbutifolia	Red Chokeberry	4	#5
Hy pr	Hypericum prolificum	Shrubby St. John's Wort	7	#1



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100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

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			CHKD.	JGS	WJS
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FILE NAME		N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek_Daylight\Civil\PH2.LSP_080364_00055_01.dgn			

TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 LANDSCAPING PLAN**

PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 53 OF 93

DRAWING NO.

PLANT LIST				
Sym.	Botanical Name	Common Name	Qty.	Install Size
Deciduous Tree				
Be ni	Betula nigra	River Birch	2	7' clump
Qu al	Quercus alba	White Oak	7	2 1/2"
Ta di	Taxodium distichum	Bald Cypress	5	3"
Ti to	Tilia tomentosa 'Sterling'	Sterling Silver Linden	5	3"
Deciduous Shrub				
Ar ar	Aronia arbutifolia	Red Chokeberry	4	#5
Hy pr	Hypericum prolificum	Shrubby St. John's Wort	7	#1

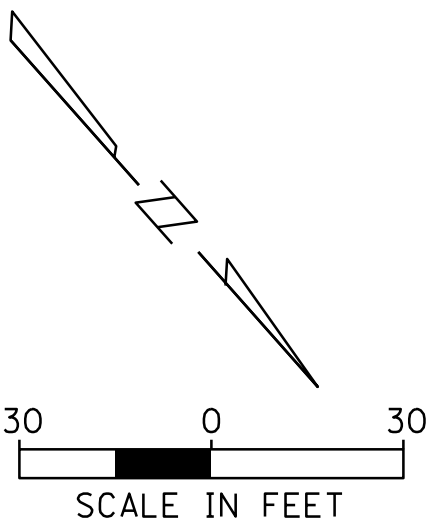
MATCH LINE STA. 209 + 50

LUNDAHL
MIDDLE SCHOOL

HIGHLAND AV

NASH RD

NOTE:
A NOMINAL QUANTITY OF TREES IS INCLUDED IN
THE CONTRACT WITH LOCATIONS TO BE MARKED IN
THE FIELD BY THE ENGINEER DURING CONSTRUCTION.



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9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.	FILE NAME	DSGN.	JAL	DT0
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TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 LANDSCAPING PLAN**

PROJ. NO. 08-0364.55B
DATE: 10/6/2025
SHEET 54 OF 93
DRAWING NO.

Benchmark: OSBM 21-2 Square cut on NE corner of conc. base for Telephone Pad Approx. 175' West of Nash Road on South Side of St. Andrews Lane Elev. 885.41.

Existing Structure: Three (3) 36" RCP Culverts with CIP Headwall at South End.

Road to be closed during construction.

Salvage: None

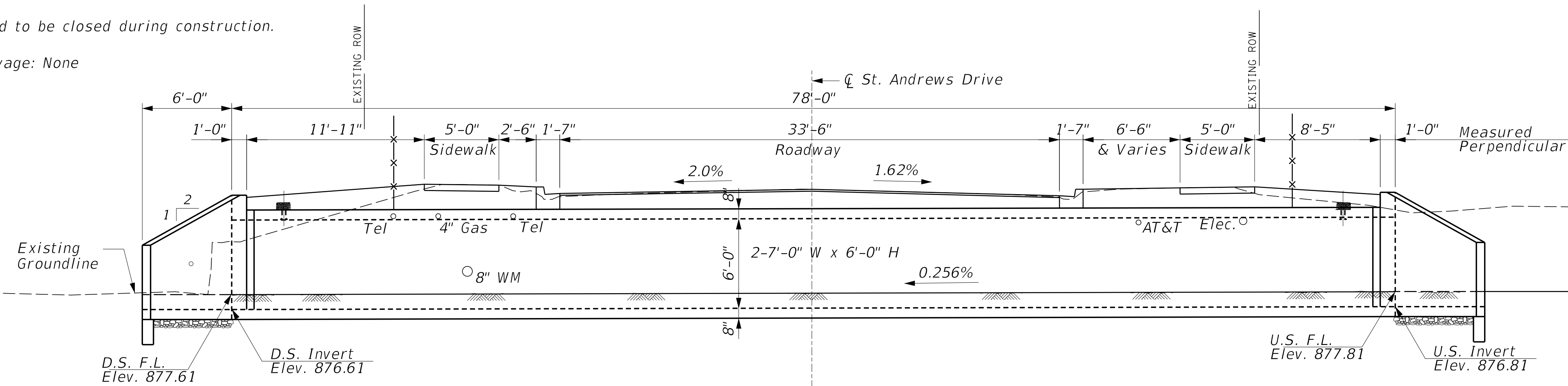
GENERAL NOTES

The design fill height for this box is 0.81 ft. The precast box culvert sections shall conform to the requirements of ASTM C 1577.

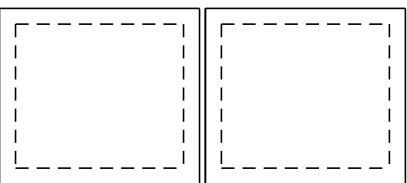
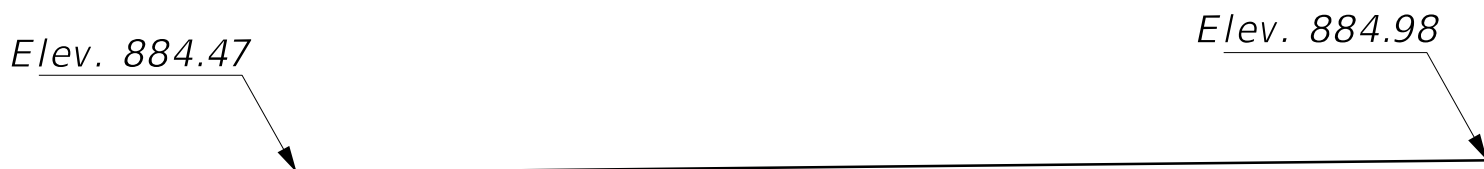
Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard 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 in the required excavation areas on the sides of the box culvert from the top of the box culvert to the bottom of the box culvert. This area of PGE is included in the Porous Granular Embankment pay item. The 6-inch thick layer of porous granular material required under the precast concrete box culvert, according to Section 540.06 of the standard specifications, shall also apply to the end sections. Cost of this porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.



ELEVATION



PROFILE GRADE

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications
Customary U.S. Units, 9th Edition

LOADING HL-93

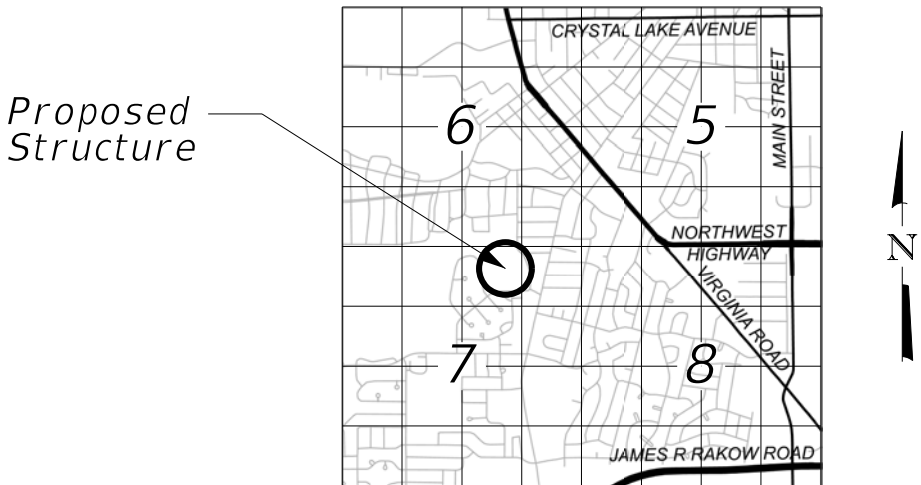
DESIGN STRESSES

PRECAST UNITS

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

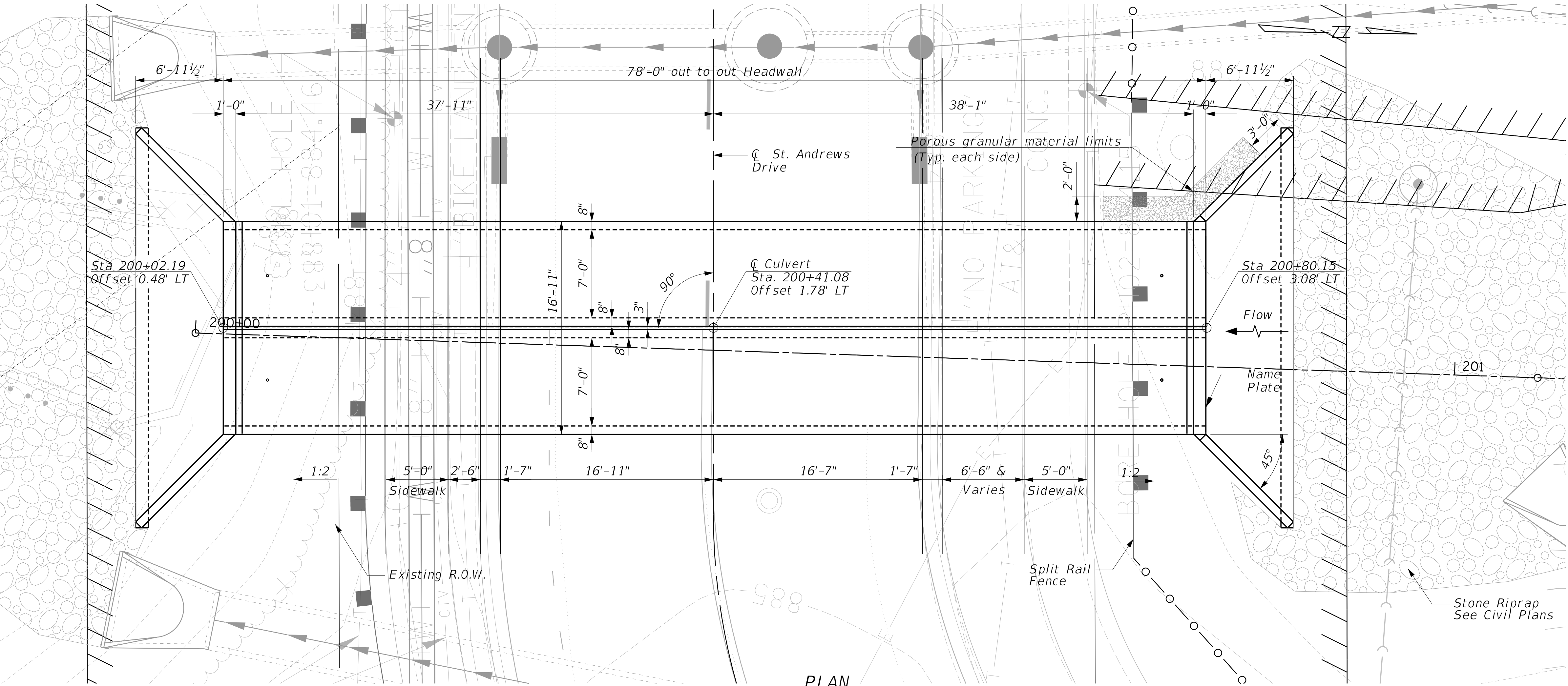
FIELD UNITS

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



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
ST. ANDREWS LANE
OVER CRYSTAL CREEK
CITY OF CRYSTAL LAKE
McHENRY COUNTY
STATION 200+41.17



PLAN

SEE SHEET 14 FOR BOX
CULVERT LOCATION



CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL
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TITLE:

CRYSTAL CREEK
DAYLIGHTING PROJECT
PROPOSED BOX CULVERT NO. 1
GENERAL PLAN AND ELEVATION

PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 55 OF 93

DRAWING NO.

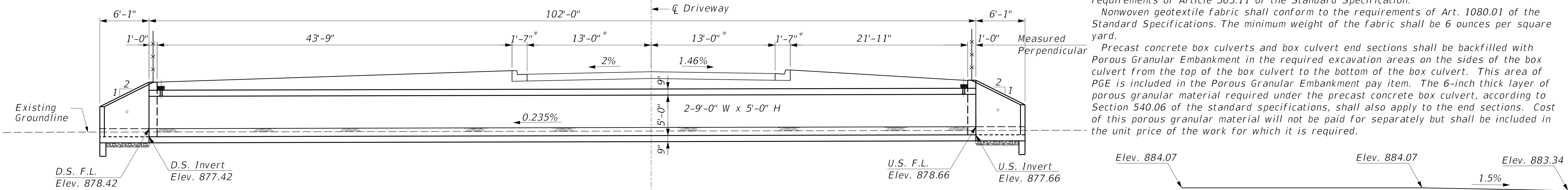
55

Benchmark: 05BM 21-2 Square cut on NE corner of conc. base for Telephone Pad Approx. 175' West of Nash Road on South Side of St. Andrews Lane Elev. 885.41.

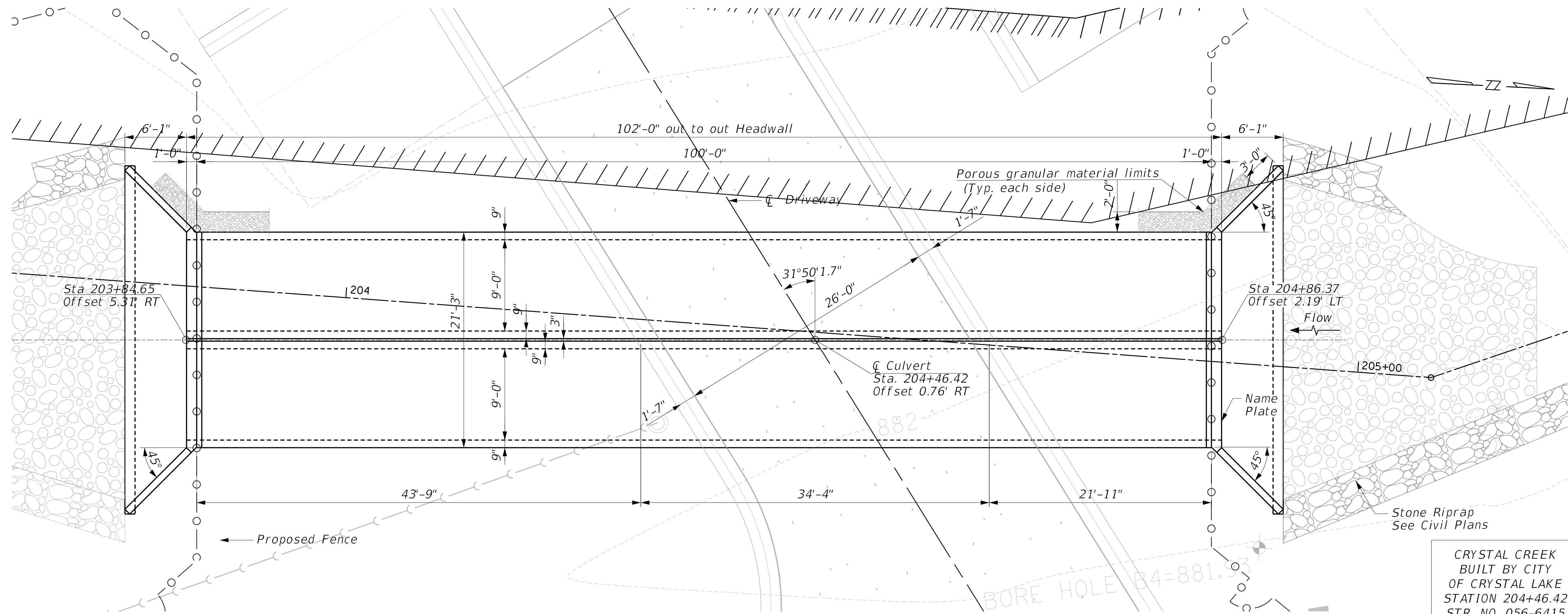
Existing Structure: Three (3) 36" RCP Culverts with CIP Headwall at South End.

Road to be closed during construction.

Salvage: None



ELEVATION



PLAN

SEE SHEET 35 FOR BOX
CULVERT LOCATION

* Measured from C of Culvert.

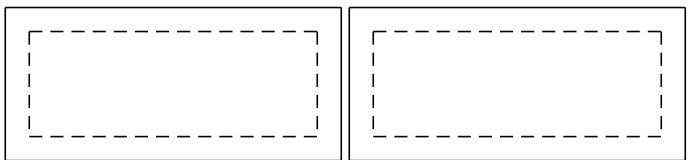
GENERAL NOTES

The design fill height for this box is 1.11 ft. The precast box culvert sections have a skew that exceeds 30 degrees. Therefore the applicable standard ASTM C1577 design guidelines should be replaced with the special provision provided. See Speical Provsions for more information.

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 in the required excavation areas on the sides of the box culvert from the top of the box culvert to the bottom of the box culvert. This area of PGE is included in the Porous Granular Embankment pay item. The 6-inch thick layer of porous granular material required under the precast concrete box culvert, according to Section 540.06 of the standard specifications, shall also apply to the end sections. Cost of this porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.



PROFILE GRADE

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications
Customary U.S. Units, 9th Edition

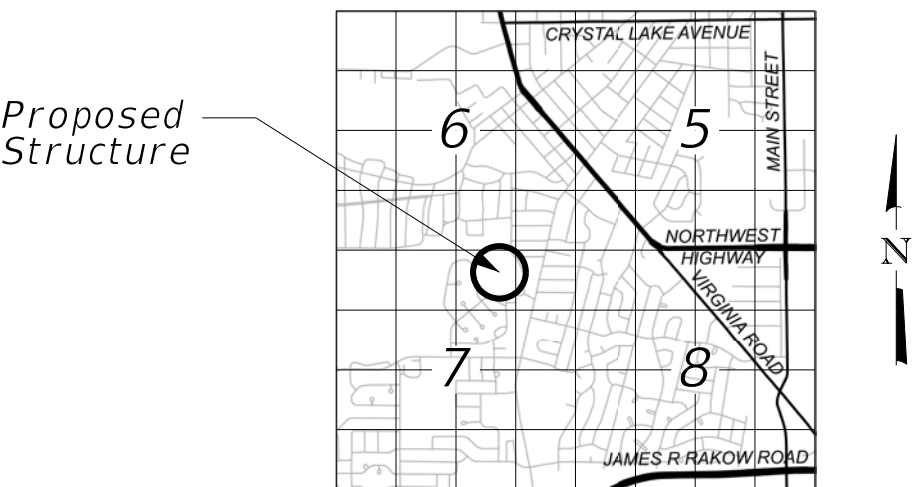
LOADING HL-93

DESIGN STRESSES

PRECAST UNITS

f'_c = 5,000 psi
 f_y = 65,000 psi (Welded Wire Reinforcement)
FIELD UNITS

f'_c = 3,500 psi
 f_y = 65,000 psi (Welded Wire Reinforcement)



LOCATION SKETCH

GENERAL PLAN AND ELEVATION

DRIVEWAY ENTRANCE

OVER CRYSTAL LAKE

CITY OF CRYSTAL LAKE

McHENRY COUNTY

STATION 204+46.42

STRUCTURE NO. 056-6415

NAME PLATE
See Std. 515001

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
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TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PROPOSED BOX CULVERT NO. 2
GENERAL PLAN AND ELEVATION**

PROJ. NO. 08-0364.55B

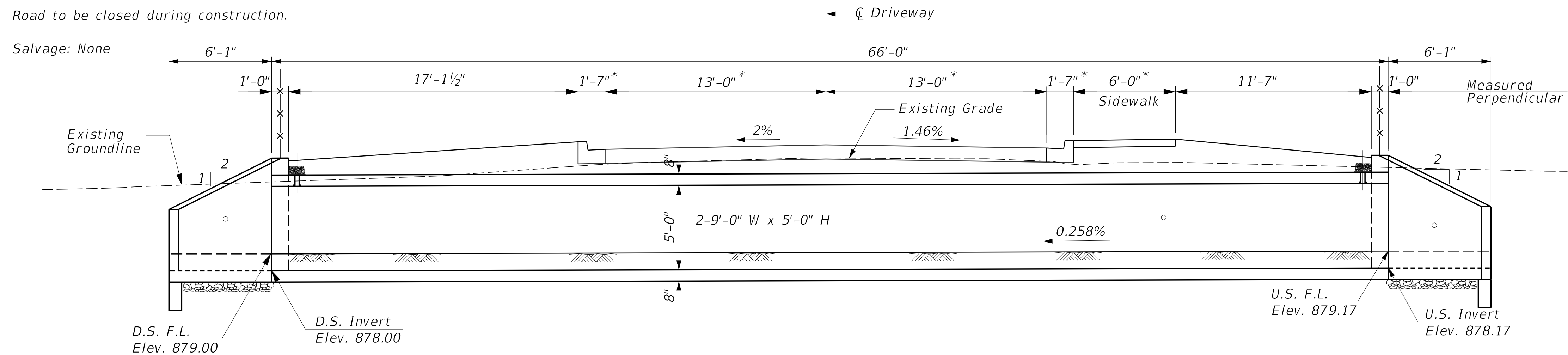
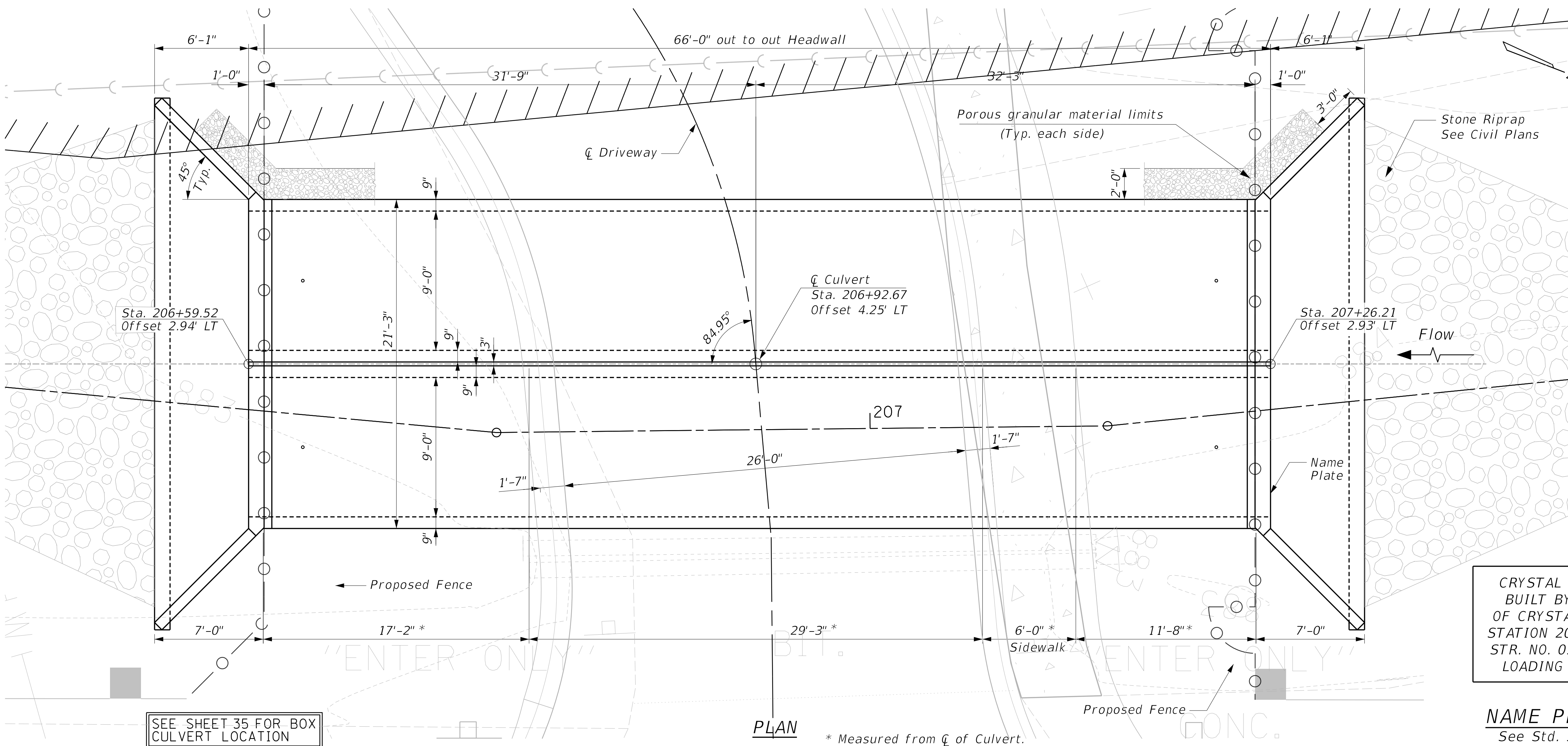
DATE: 10/6/2025

SHEET 56 OF 93

DRAWING NO.

56

Salvage: None

ELEVATION

PLAN

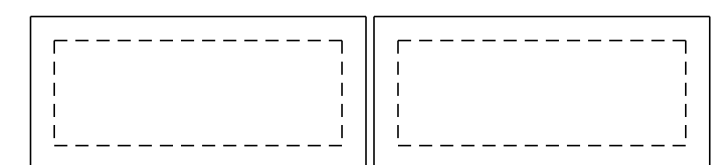
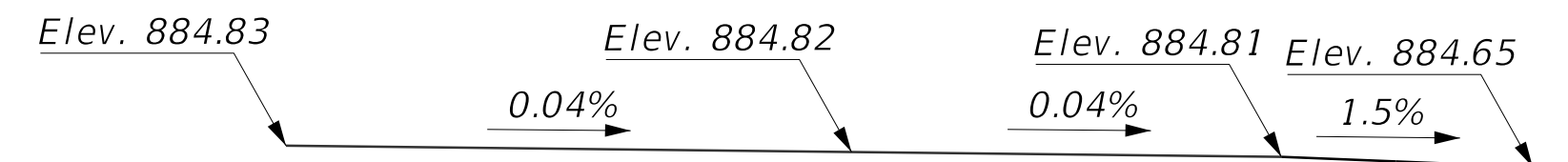
* Measured from ζ of Culvert.

GENERAL NOTES

The design fill height for this box is 0.72 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 in the required excavation areas on the sides of the box culvert from the top of the box culvert to the bottom of the box culvert. This area of PGE is included in the Porous Granular Embankment pay item. The 6-inch thick layer of porous granular material required under the precast concrete box culvert, according to Section 540.06 of the standard specifications, shall also apply to the end sections. Cost of this porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.

PROFILE GRADE

DESIGN SPECIFICATIONS

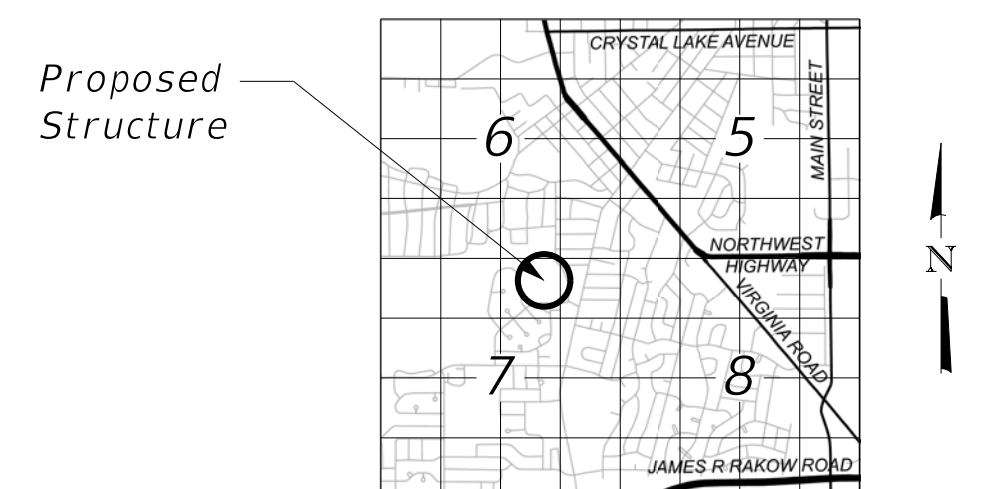
2020 AASHTO LRFD Bridge Design Specifications
Customary U.S. Units, 9th Edition

LOADING HL-93

DESIGN STRESSES

PRECAST UNITS

$f'_c = 5,000 \text{ psi}$
 $f_y = 65,000 \text{ psi}$ (Welded Wire Reinforcement)
 FIELD UNITS

$$\begin{aligned} f'_c &= 3,500 \text{ psi} \\ f_y &= 65,000 \text{ psi} \text{ (Welded Wire Reinforcement)} \end{aligned}$$


LOCATION SKETCH

GENERAL PLAN AND ELEVATION

DRIVEWAY ENTRANCE

OVER CRYSTAL CREEK

CITY OF CRYSTAL LAKE

McHENRY COUNTY

STATION 206+92.67

STRUCTURE NO. 056-6415

NAME PLATE

See Std. 515001



CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500



CITY OF CRYSTAL LAKE

100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

				DSGN.	CPF	JMB
				DWN.	PDR	
				CHKD.	JMB	
				SCALE:	4'	
				PLOT DATE:	10/6/2025	
				CAD USER:	mkoonce	
NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:	Default	
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00005 - Crystal Creek	Daylight\Structure\080364.00005-03-GPE_BoxCulvert3				

TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PROPOSED BOX CULVERT NO. 3
GENERAL PLAN AND ELEVATION**

PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 57 OF 93

DRAWING NO.

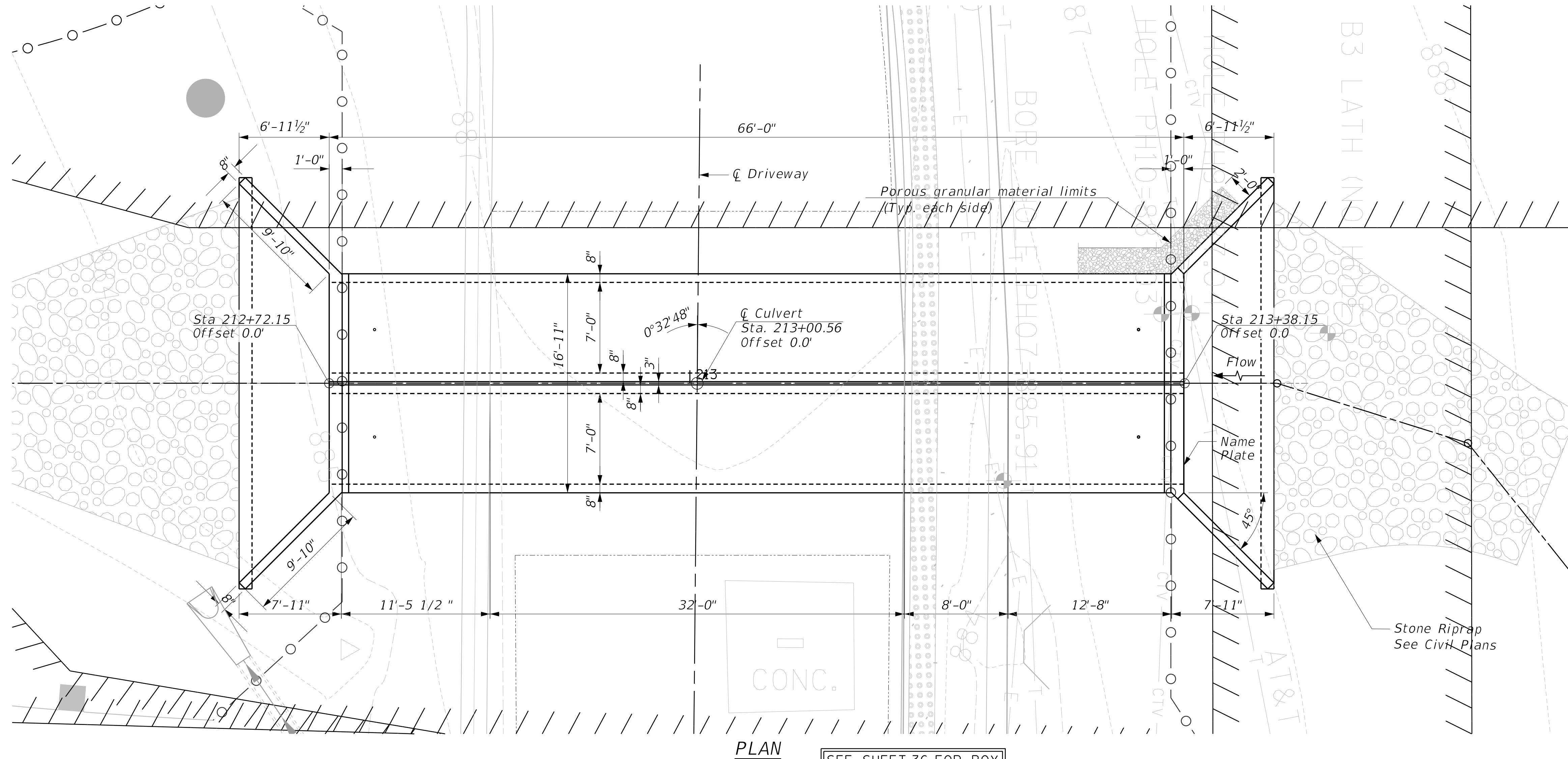
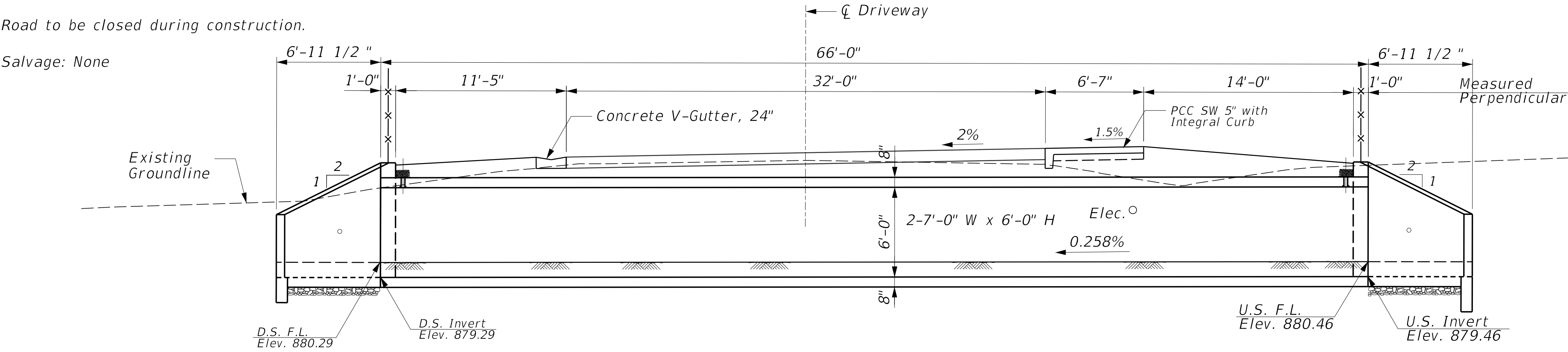
7

Benchmark: OSBM 21-2 Square cut on NE corner of conc. base for Telephone Pad Approx. 175' West of Nash Road on South Side of St. Andrews Lane Elev. 885.41.

Existing Structure: One (1) 24" CMP Culverts with FES.

Road to be closed during construction.

Salvage: None



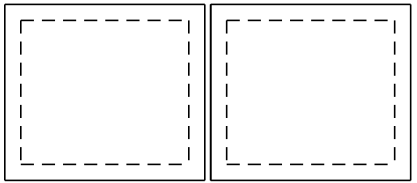
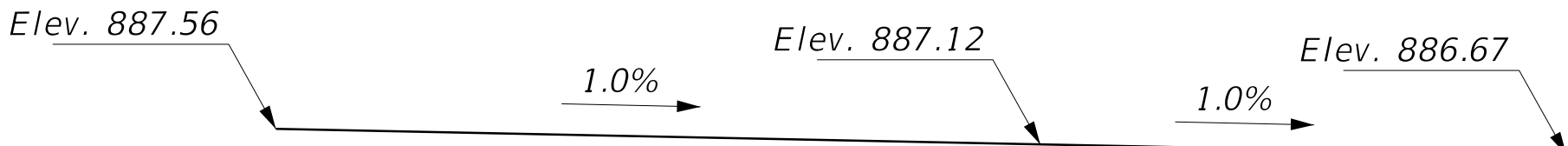
GENERAL NOTES

The design fill height for this box is 1.37 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 in the required excavation areas on the sides of the box culvert from the top of the box culvert to the bottom of the box culvert. This area of PGE is included in the Porous Granular Embankment pay item. The 6-inch thick layer of porous granular material required under the precast concrete box culvert, according to Section 540.06 of the standard specifications, shall also apply to the end sections. Cost of this porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.



PROFILE GRADE

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications
Customary U.S. Units, 9th Edition

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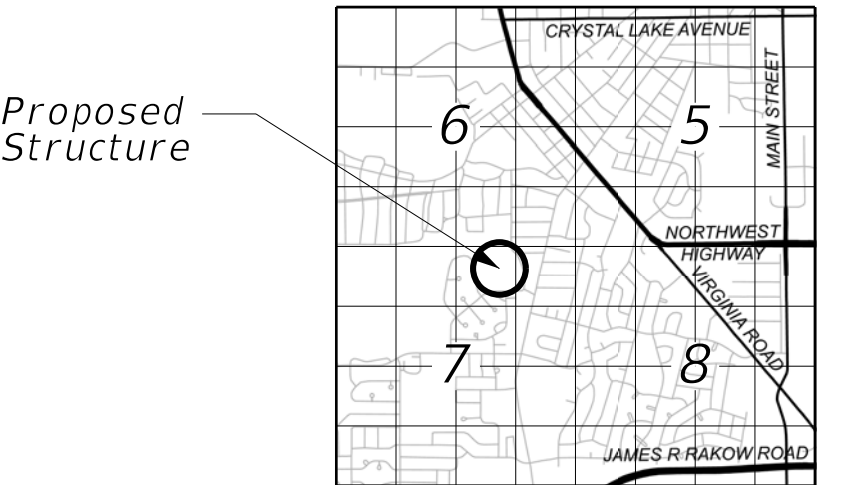
DESIGN STRESSES

PRECAST UNITS

f'_c = 5,000 psi
 f_y = 65,000 psi (Welded Wire Reinforcement)

FIELD UNITS

f'_c = 3,500 psi
 f_y = 65,000 psi (Welded Wire Reinforcement)



LOCATION SKETCH

GENERAL PLAN AND ELEVATION

DRIVEWAY ENTRANCE

OVER CRYSTAL CREEK

CITY OF CRYSTAL LAKE

McHENRY COUNTY

STATION 213+00.56



CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:



CITY OF CRYSTAL LAKE

100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL
1	10/6/2025	Initial Design	JMB	Default
2	10/6/2025	Revised Design	JMB	Default
3	10/6/2025	Final Design	JMB	Default

TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PROPOSED BOX CULVERT NO. 5
GENERAL PLAN AND ELEVATION**

PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 59 OF 93

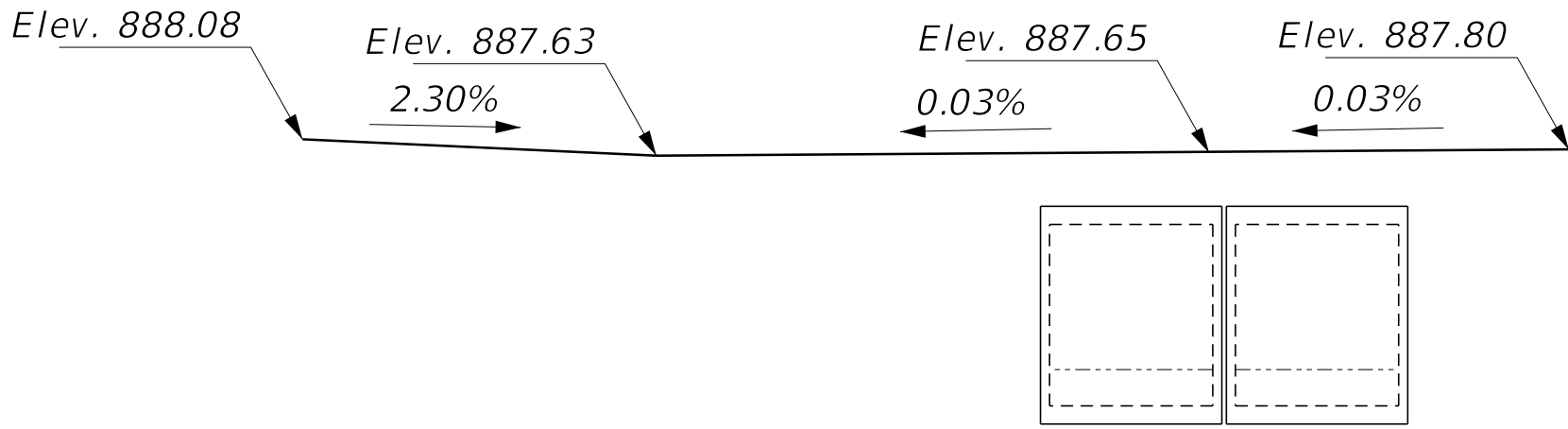
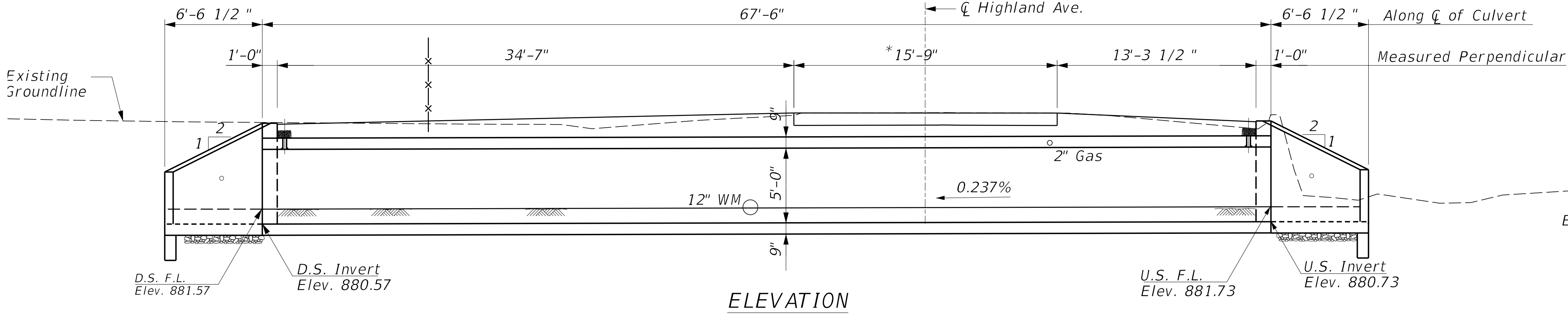
DRAWING NO.

59

Benchmark: OSBM 21-2 Square cut on NE corner of conc. base for Telephone Pad Approx. 175' West
of Nash Road on South Side of St. Andrews Lane Elev. 885.41.
Existing Structure: None.
Salvage: None

GENERAL NOTES

The design fill height for this box is 0.81 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 in the required excavation areas on the sides of the box culvert from the top of the box culvert to the bottom of the box culvert. This area of PGE is included in the Porous Granular Embankment pay item. The 6-inch thick layer of porous granular material required under the precast concrete box culvert, according to Section 540.06 of the standard specifications, shall also apply to the end sections. Cost of this porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.



DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications
Customary U.S. Units, 9th Edition

LOADING HL-93

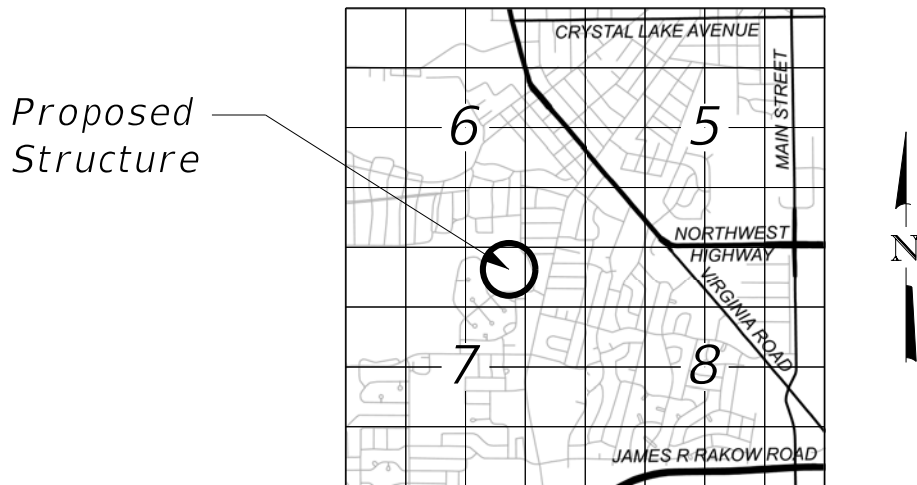
DESIGN STRESSES

PRECAST UNITS

$f'_c = 5,000$ psi
 $f_y = 65,000$ psi (Welded Wire Reinforcement)

FIELD UNITS

$f'_c = 5,000$ psi
 $f_y = 65,000$ psi (Welded Wire Reinforcement)

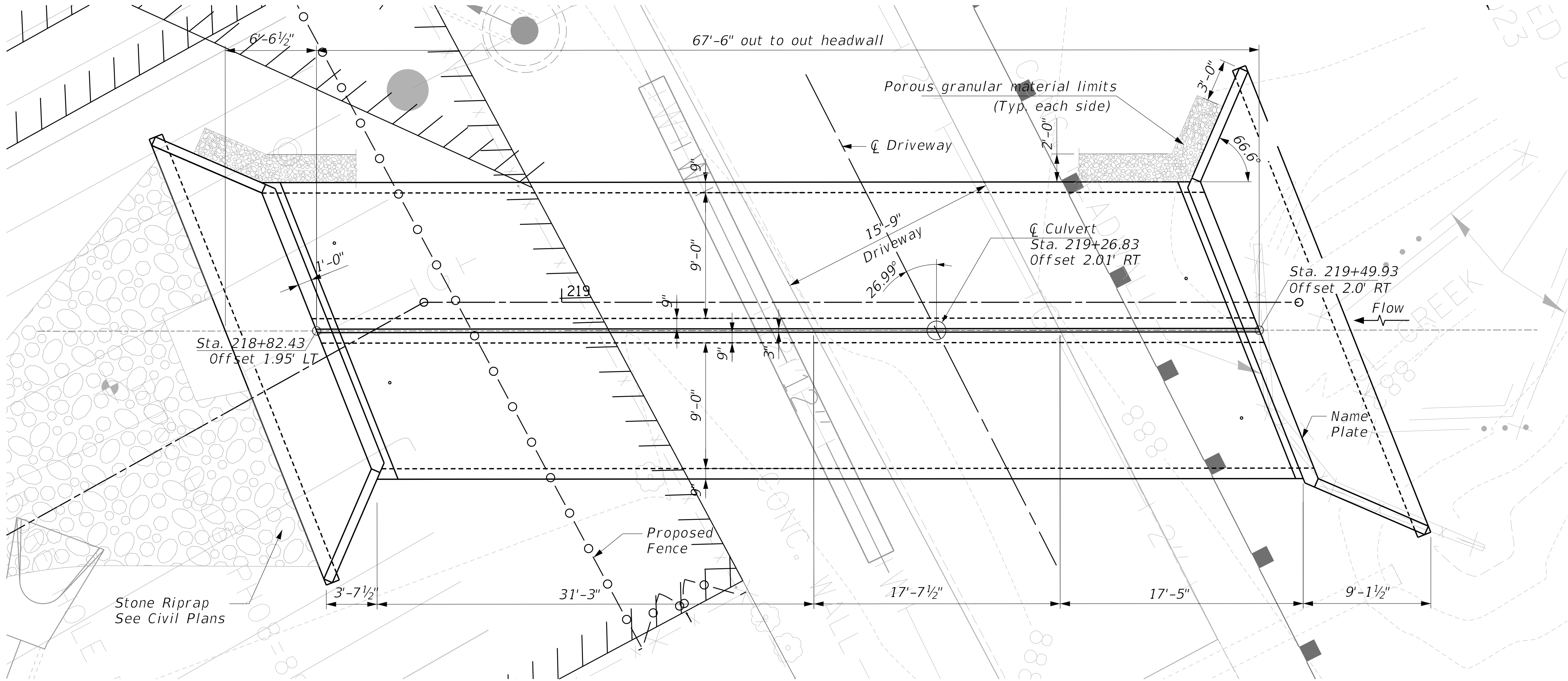


LOCATION SKETCH

GENERAL PLAN AND ELEVATION
HIGHLAND AVENUE
OVER CRYSTAL CREEK
CITY OF CRYSTAL LAKE
McHENRY COUNTY
STATION 219+26.83
STRUCTURE NO. 056-6417

NAME PLATE

See Std. 515001



SEE SHEET 17 FOR BOX
CULVERT LOCATION



CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

				DSGN.	CPF	JMB
				DWN.	PDR	
				CHKD.	JMB	
				SCALE:	5'	
				PLOT DATE:	10/6/2025	
				CAD USER:	mkoonce	
				MODEL:	Default	
NO.	DATE	NATURE OF REVISION			CHKD.	
FILE	NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek Daylight\Struct\080364.00055-06-GPE_BoxCulvert16.sht				

TITLE:

CRYSTAL CREEK
DAYLIGHTING PROJECT
PROPOSED BOX CULVERT NO. 6
GENERAL PLAN AND ELEVATION

PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 60 OF 93

DRAWING NO.

60

GENERAL NOTES

1.

All work and materials shall be in accordance with the Illinois Department of Transportation (IDOT) Standard Specifications for Road and Bridge Construction adopted January 1, 2022 and latest supplemental specifications and recurring special provisions, unless noted otherwise.
2.

The Contractor shall verify all dimensions in the field prior to commencing work. The engineer shall be notified of any discrepancies which may exist, prior to proceeding with the work.
3.

Any information concerning type or location of underground and other utilities is not guaranteed to be accurate or all inclusive. The Contractor is responsible for making his own determinations as to the type and location of the utilities as may be necessary to avoid damage thereto. Contractor shall call J.U.L.I.E. prior to excavation.
4.

The contractor is responsible for design, installation and removal of all excavation support systems.
5.

The excavation and work area shall be properly drained at all times during construction. All wet, loose, frozen or other unsuitable material shall be removed prior to placement of concrete or compacted backfill. The cost of any pumping required shall be included in the cost of "Cofferdams, Dewatering, and Bypass Pumping".
6.

Contractor shall have a geotechnical engineer to field verify the allowable bearing capacity under the box culvert and wingwall exceeds 3000 psf. Cost included in "Precast Concrete Box Culvert".
7.

It shall be the responsibility of the Contractor to divert the stream flow during construction in order to keep the construction areas free of water. The method of water diversion shall be subject to the approval of the Engineer and cost shall be included with "Cofferdams, Dewatering, and Bypass Pumping".
8.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
9.

For backfilling and embankment, see Standard Specifications.
10.

Use of CCDD fill operations: per Public Act 97-0137, if the Contractor chooses to dispose of uncontaminated soil or uncontaminated soil mixed with clean construction and demolition debris (CCDD) at a CCDD fill operation, it shall be the Contractor's responsibility to perform all necessary field and laboratory analysis and to obtain the Licensed Professional Engineer's certification required as per Public Act 96-1416 to use the site. This work shall be considered incidental to Earth Excavation or related excavation or removal item, and no additional compensation will be provided.

CAST-IN-PLACE CONCRETE NOTES

1.

All cast-in-place concrete work shall be in accordance with section 503 of the Illinois Department of Transportation (IDOT) Standard Specifications for Road and Bridge Construction adopted January 1, 2022, and the latest supplemental specifications and recurring special provisions and as noted below.
2.

Reinforcement bars shall conform to the requirements of ASTM A 706 GR60.
3.

Exposed edges of cast-in-place concrete shall be beveled 3/4".
4.

All construction joints shall be bonded.
5.

Concrete mix designs shall be submitted to the Engineer for review and approval a minimum of 7 days prior to ordering or placing concrete.
6.

Cover from the face of concrete to face of reinforcement bars shall be 3" for surfaces cast against earth and 2" for all other surfaces unless otherwise noted.
7.

Contractor shall coordinate with Precast Box Culvert Manufacturer to account for possible creep between box segments. Creep shall be determined prior to constructing second cast-in-place end section.

PRECAST CONCRETE BOX CULVERT

1.

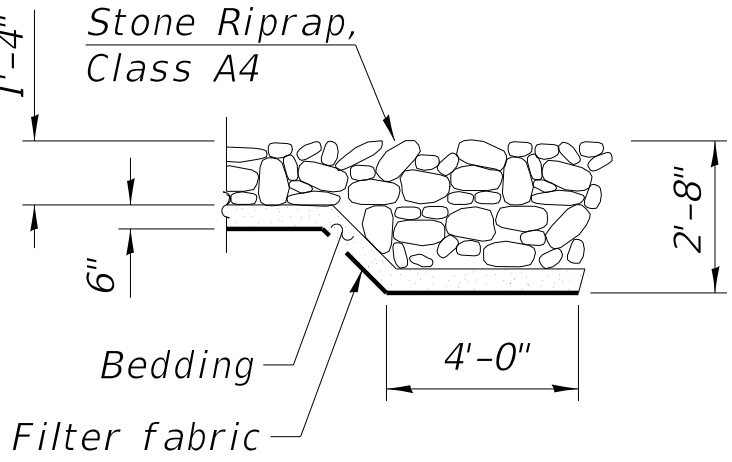
All precast concrete box culvert work shall be in accordance with sections 504 and 540 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction adopted January 1, 2022, and the latest supplemental specifications and recurring special provisions and as noted below.
2.

The precast concrete box culvert is a performance based system. The contractor shall be responsible for providing the design, engineering, fabrication and installation of the precast concrete box culvert. The contractor shall submit to the engineer calculations and shop drawings sealed by a Structural Engineer licensed in the State of Illinois for review prior to fabricating the precast concrete box culvert. Precast concrete box culverts shall conform to the requirements of ASTM C1577.

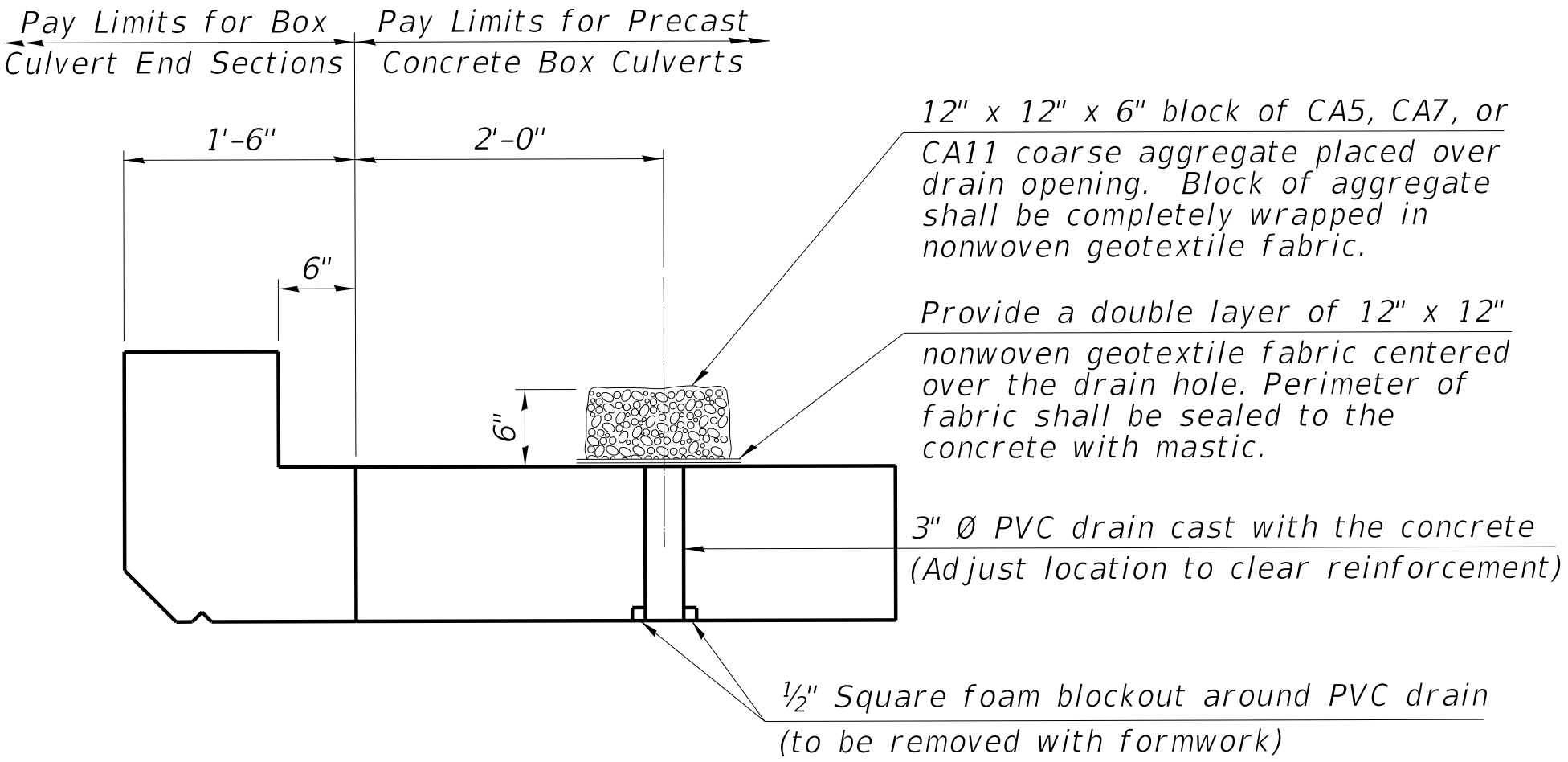
FENCES OVER CULVERT

1.

All fabrication and installation of base plates attached to precast culverts shall be included in the cost of fence line item. This includes all bas plates, anchor bolts, nuts, sleeves, and any other material needed to make the connection to the structure.

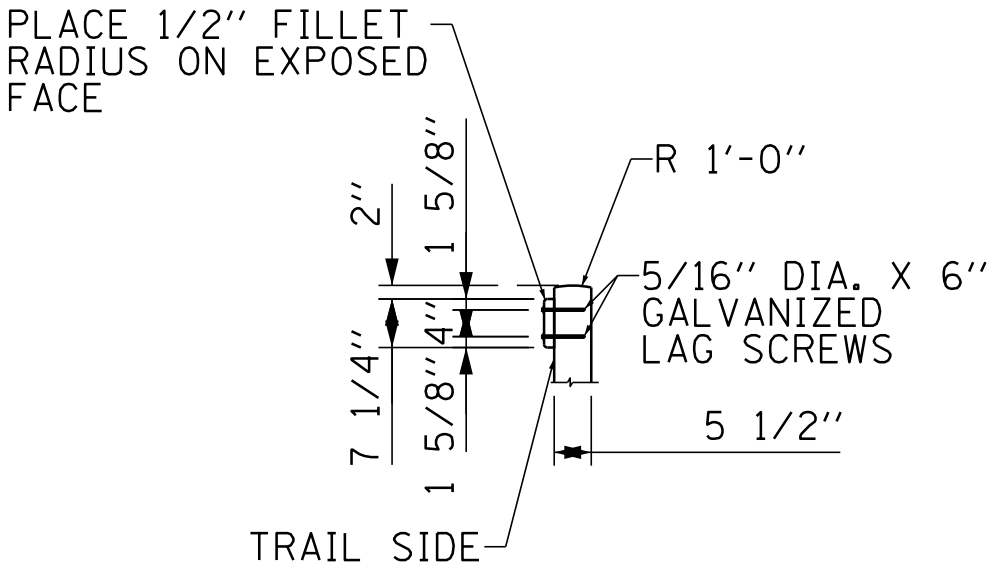


SECTION A-A

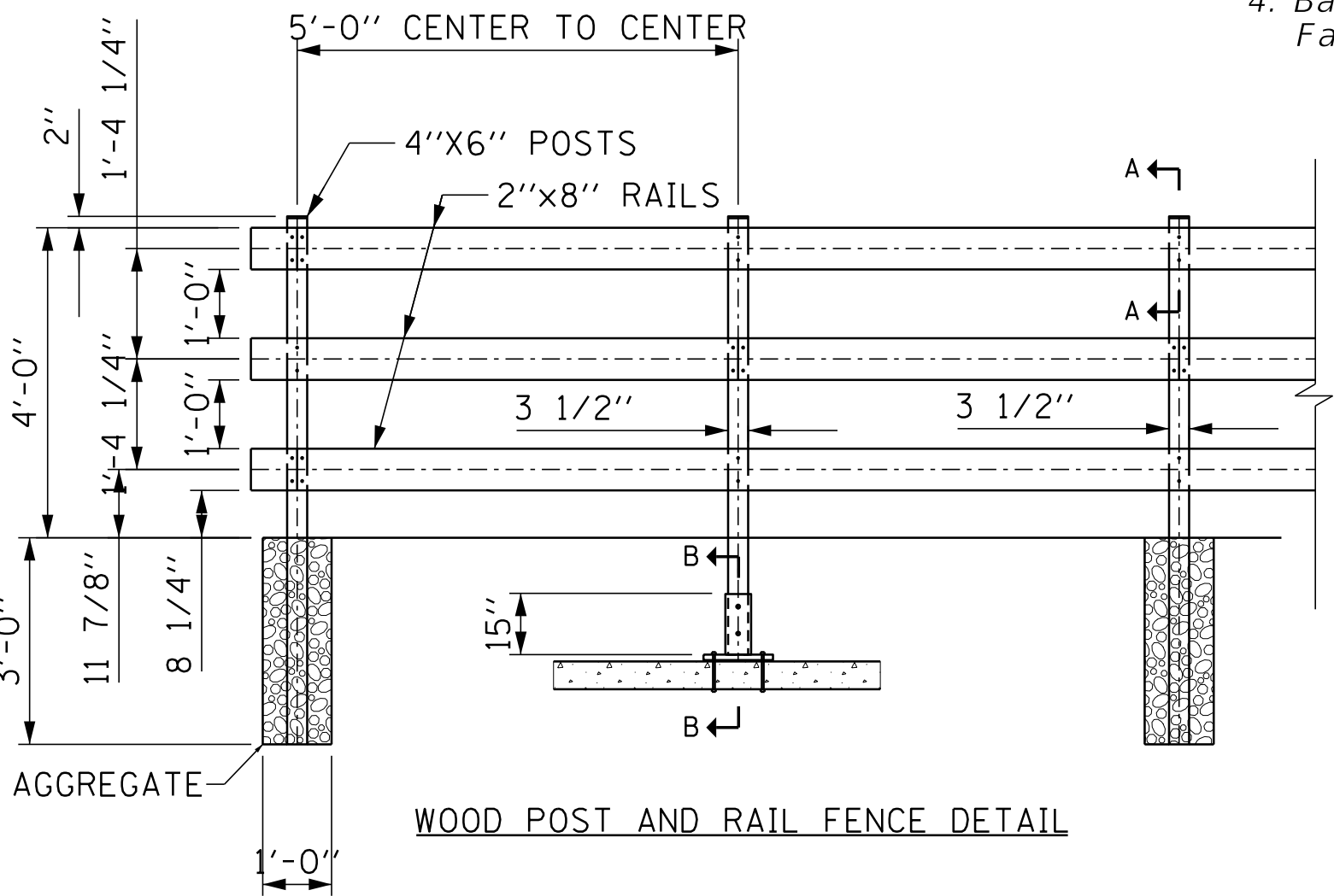
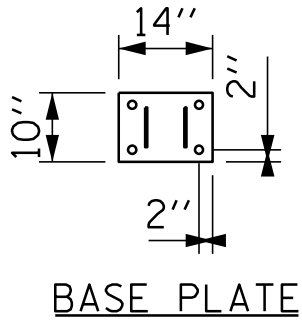


DRAIN DETAIL

(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 Precast Concrete Box Culverts.)



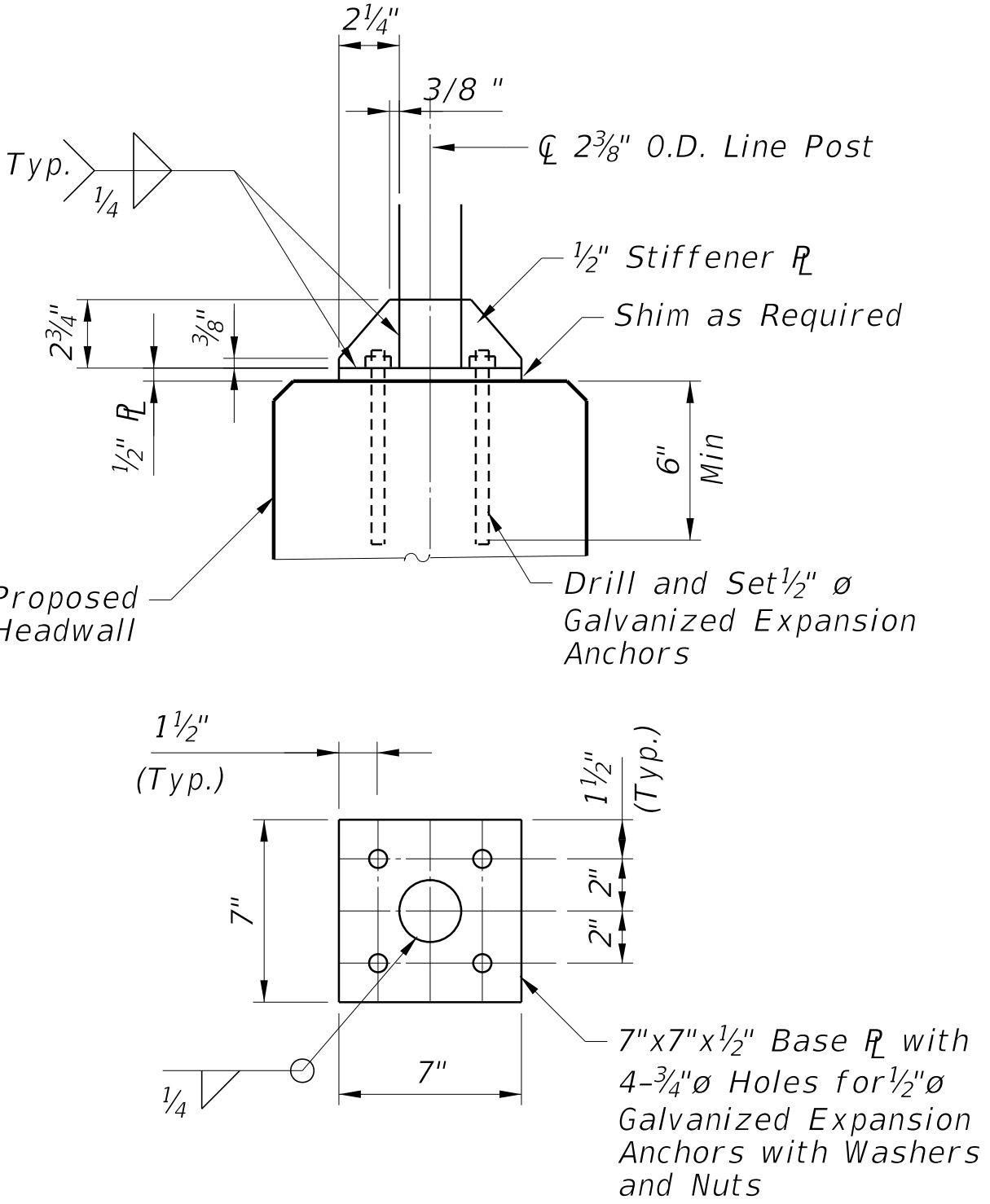
SECTION A-A



WOOD POST AND RAIL FENCE DETAIL

TOTAL BILL OF MATERIAL

DESCRIPTION	UNIT	TOTAL
Box Culvert End Sections No. 1	Each	6
Box Culvert End Sections No. 2	Each	6
Precast Concrete Box Culverts, 7'x6'	Foot	378
Precast Concrete Box Culverts, 9'x5'	Foot	453
Porous Granular Embankment	Cu. Yd.	2,515
Structure Excavation	Cu. Yd.	3,990
Geocomposite Wall Drain	Sq. Yd.	1,005
Membrane Waterproofing System for Buried Structures	Sq. Yd.	1,005
Name Plates	Each	3



NOTES:

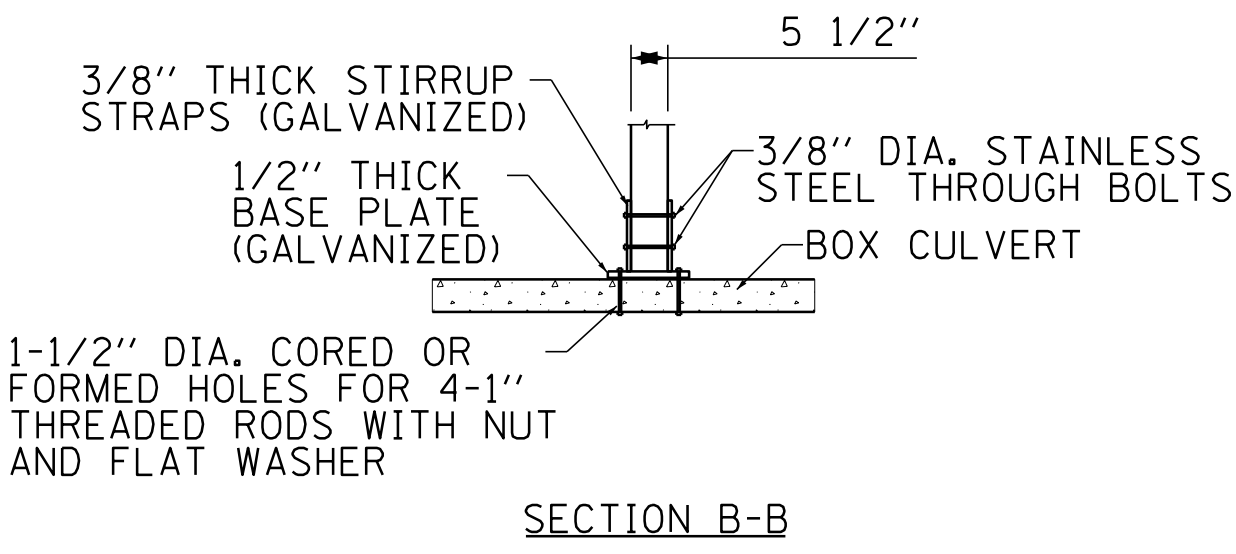
1.

Base Plates, Stiffeners and Expansion Anchors for Mounting Fence on Head Walls shall be included in the cost of Fence.
2.

If Necessary the Size of the Base Plate and Location of the Expansion Anchors may be Adjusted to Miss the Wall Reinforcement.
3.

Base Plates and Stiffeners Shall be Fabricated from Material Meeting the Requirements of AASHTO M270 Grade 36.
4.

Base Plates, Stiffeners and Posts Shall be Hot Dipped Galvanized After Fabrication in Accordance with AASHTO.



SECTION B-B



CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

				DSGN.	CPF	JMB
				DWN.	PDR	
				CHKD.	JMB	
				SCALE:	1'	
				PLOT DATE:	10/6/2025	
				CAD USER:	mkoonce	
				MODEL:	Default	
NO.	DATE	NATURE OF REVISION			CHKD.	
FILE	NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek_Daylighting\Struct\080364.00055-07-GNotes.sh				

TITLE:

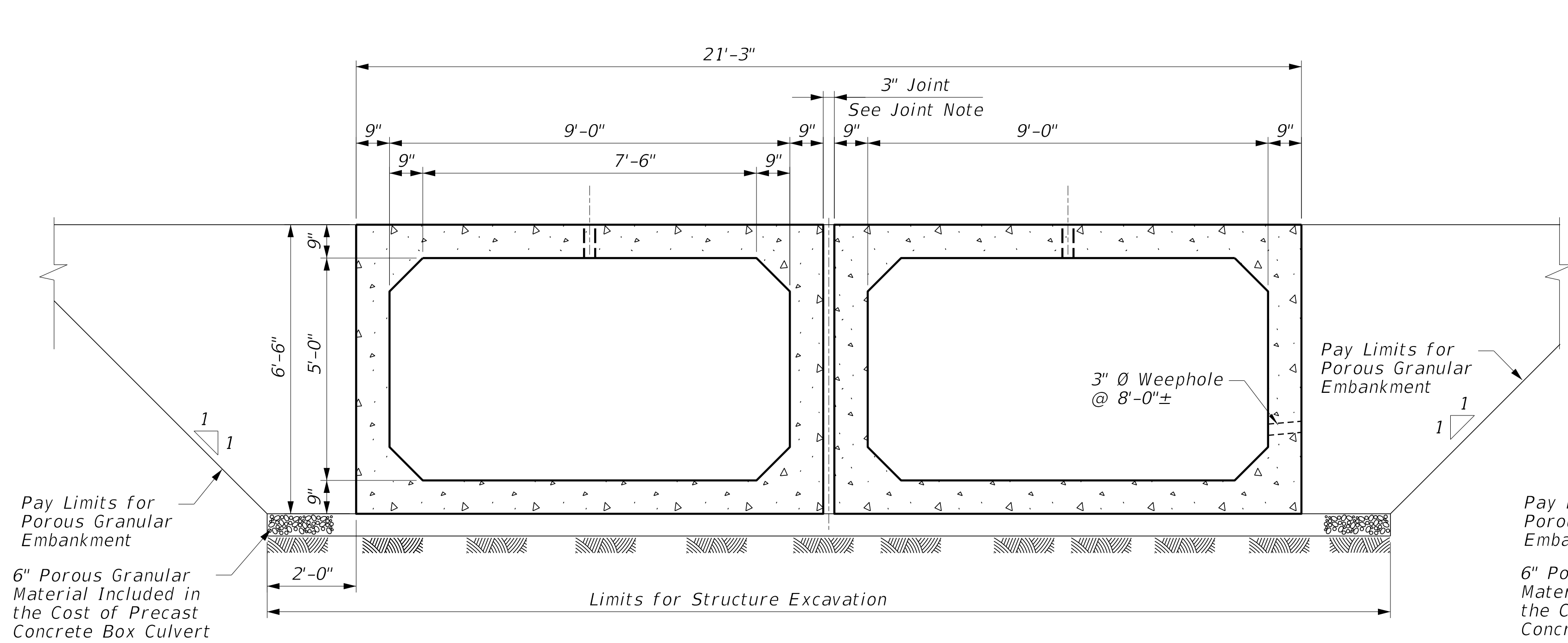
**CRYSTAL CREEK
DAYLIGHTING PROJECT
GENERAL NOTES**

PROJ. NO. 08-0364,55B

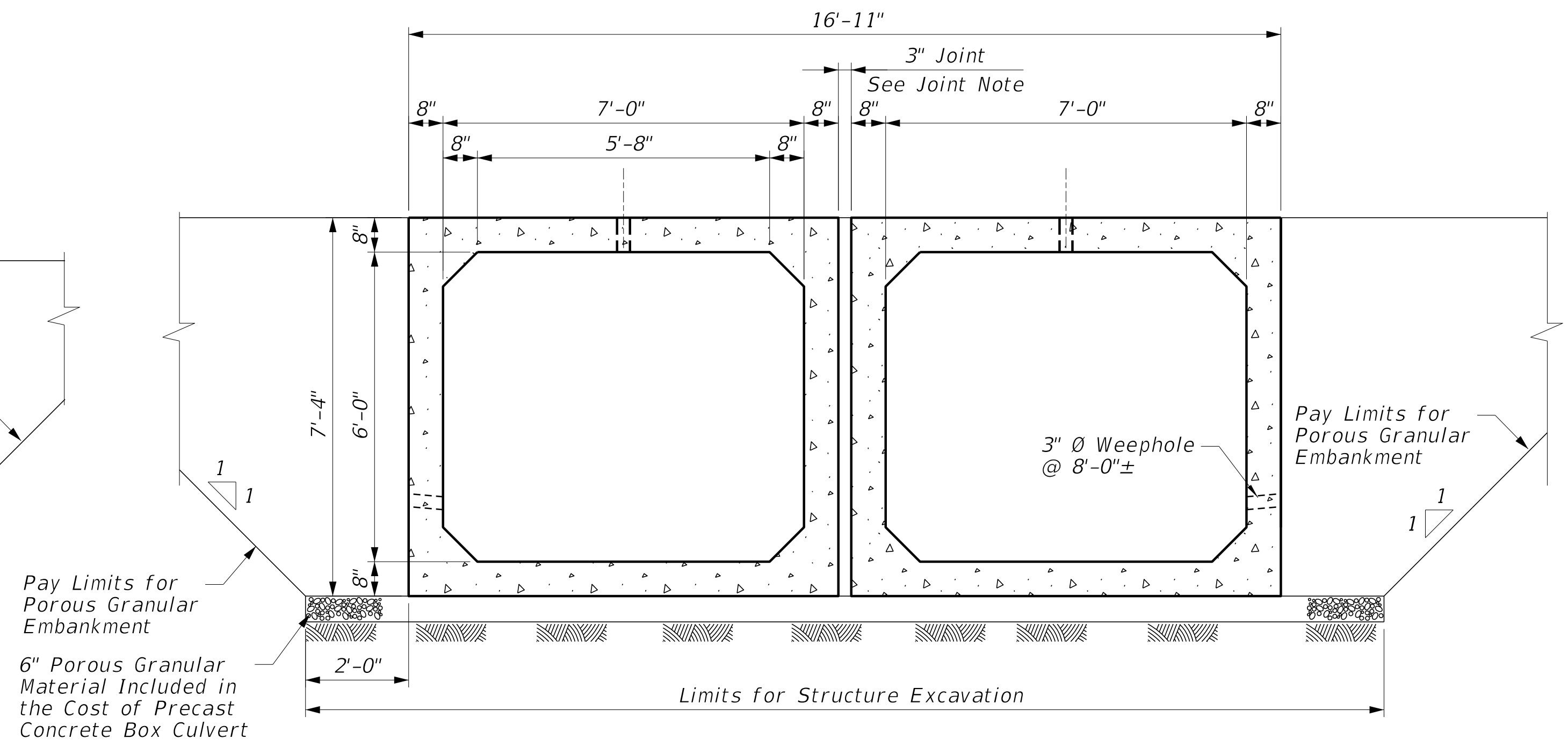
DATE: 10/6/2025

SHEET 61 OF 93

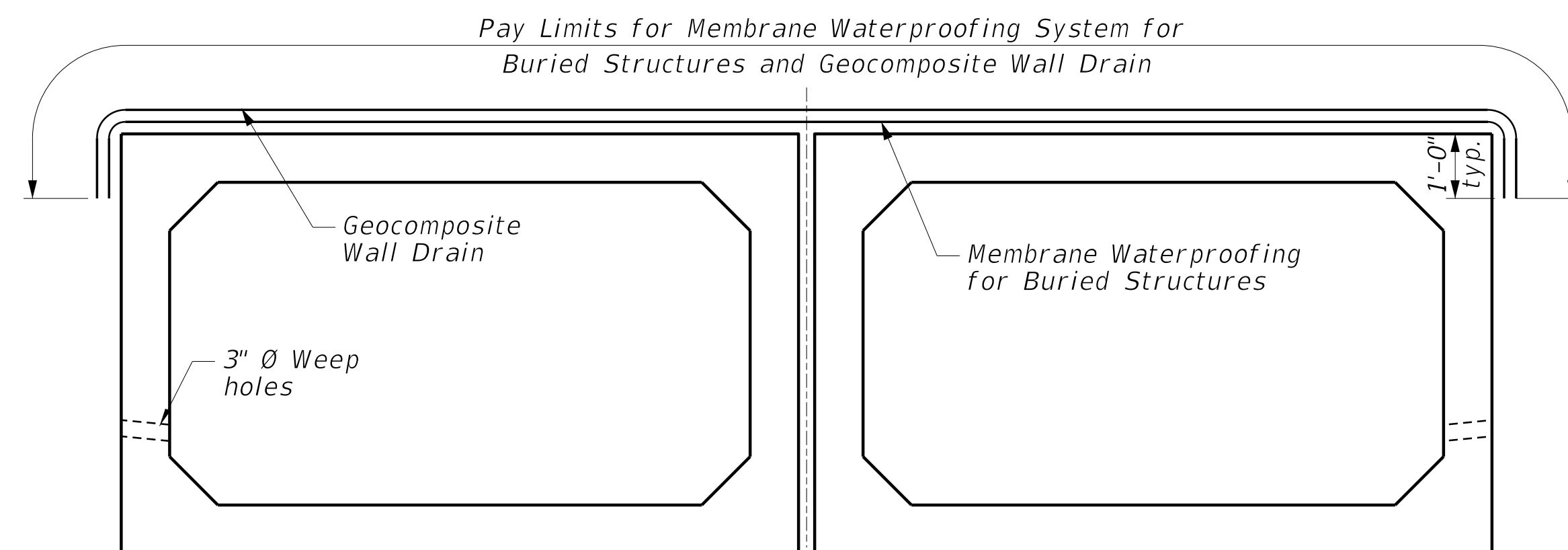
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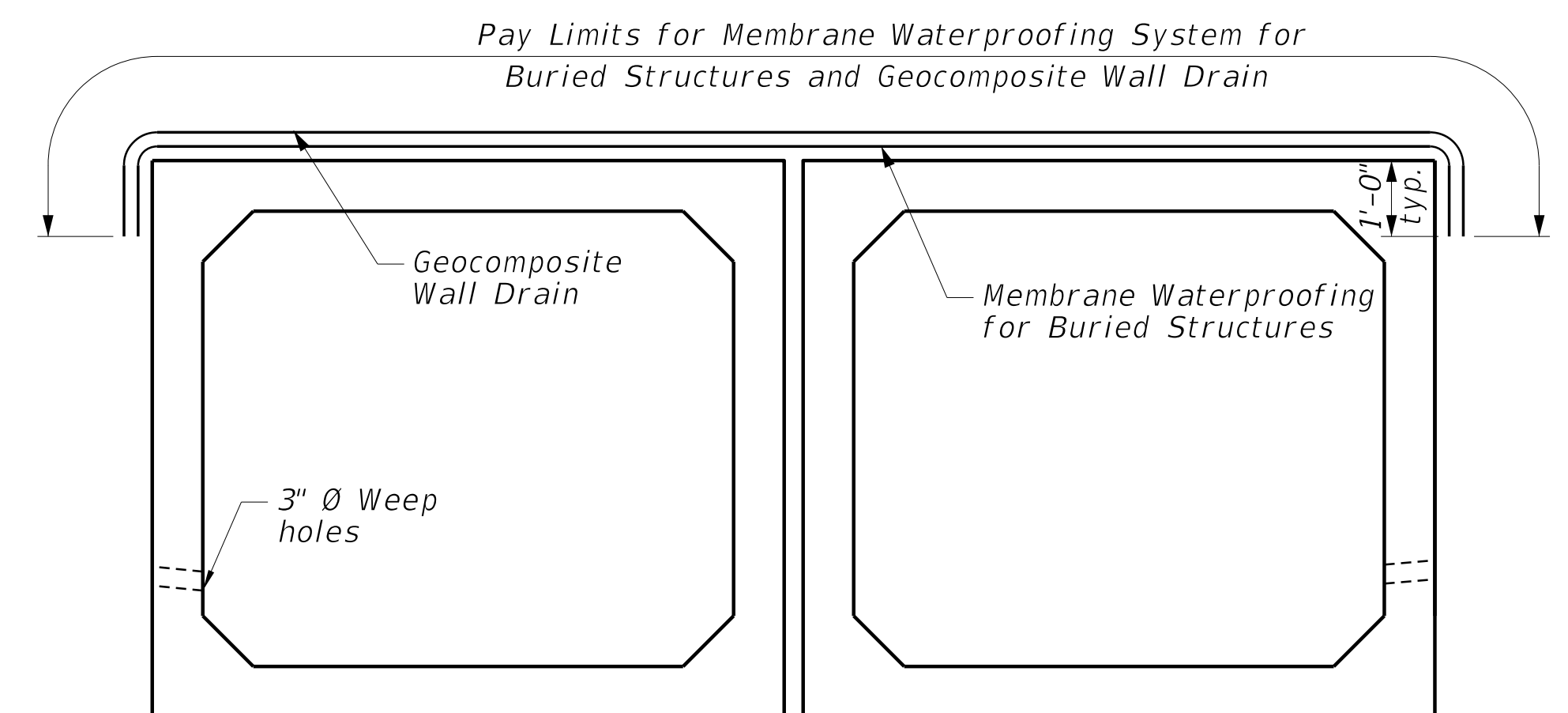
TYPICAL SECTION THRU PRECAST CULVERT
(PRECAST CULVERT 9'x5')



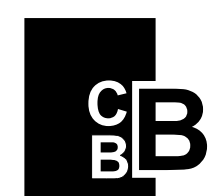
TYPICAL SECTION THRU PRECAST CULVERT
(PRECAST CULVERT 7'x6')



MEMBRANE WATERPROOFING SYSTEM
(PRECAST CULVERT 9'x5')



MEMBRANE WATERPROOFING SYSTEM
(PRECAST CULVERT 7'x6')



CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:	Default
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek Daylight\Struct\080364.00055-08-TypicalDetails.shx				

DSGN.	CPF	JMB
DWN.	PDR	
CHKD.	JMB	
SCALE:	1'	
PLOT DATE:	10/6/2025	
CAD USER:	mkoonce	

TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PROPOSED BOX CULVERT
DETAILS**

PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 62 OF 93

DRAWING NO.

62

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.

Details for Double Cell Box Culvert shown. Details for Triple Cell Box Culvert similar.

The details contained herein are for constructing the end sections using cast-in-place (CIP) construction. The Contractor may propose to furnish the end sections using precast construction methods and the end sections may consist of multiple precast concrete segments. The Contractor shall be responsible for determining all details associated with the precast option 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. Elements of the precast option shall at a minimum result in the same wingwall geometry and not have a thickness less than that detailed herein. The option to construct the end sections using precast construction methods shall be at no additional charge.

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 $\frac{1}{2}$ " nor more than 2".

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.

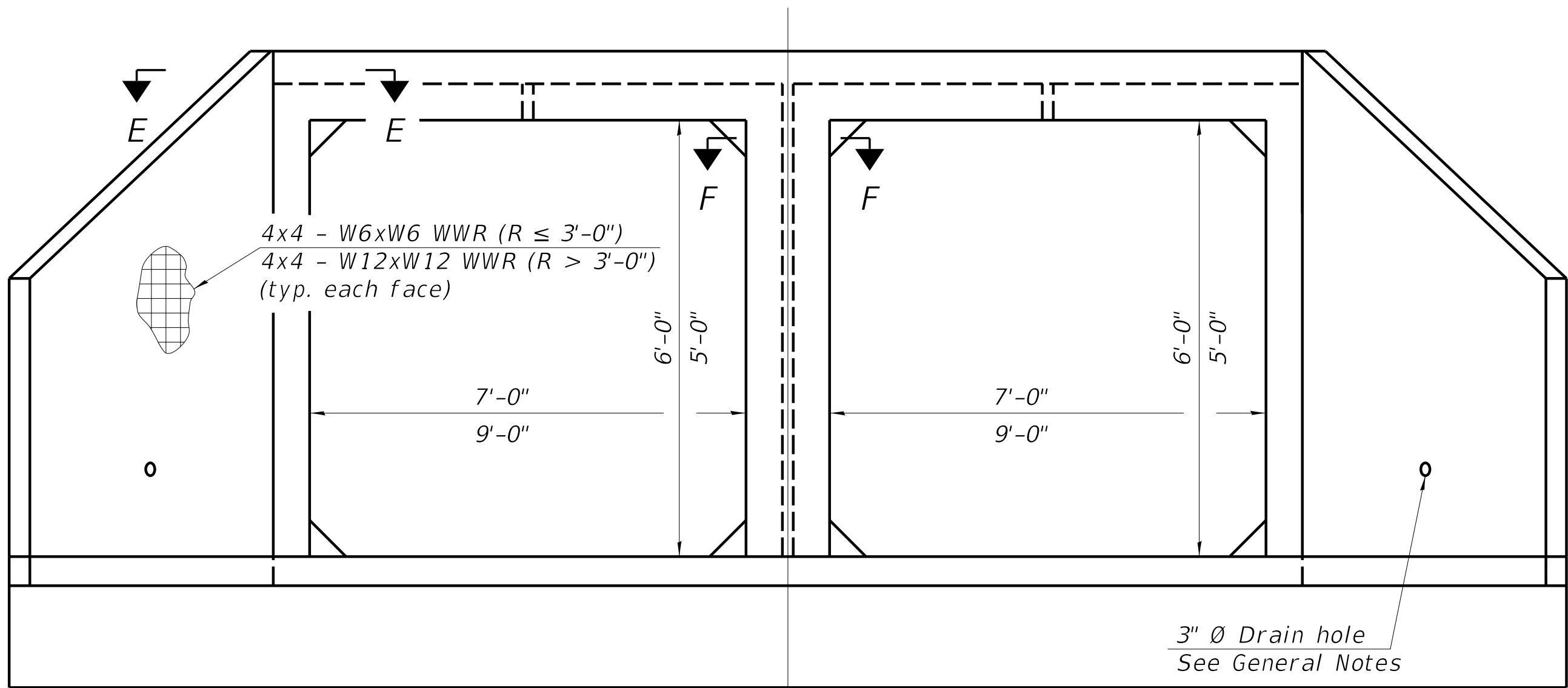
Reinforcement (circumferential and longitudinal) in the precast concrete box culvert segments immediately adjacent to the box culvert end sections that is being lapped with the end section reinforcement shall not be less than that required by ASTM C 1577 for the design fill height or the reinforcement detailed for the end section, whichever is greater.

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.

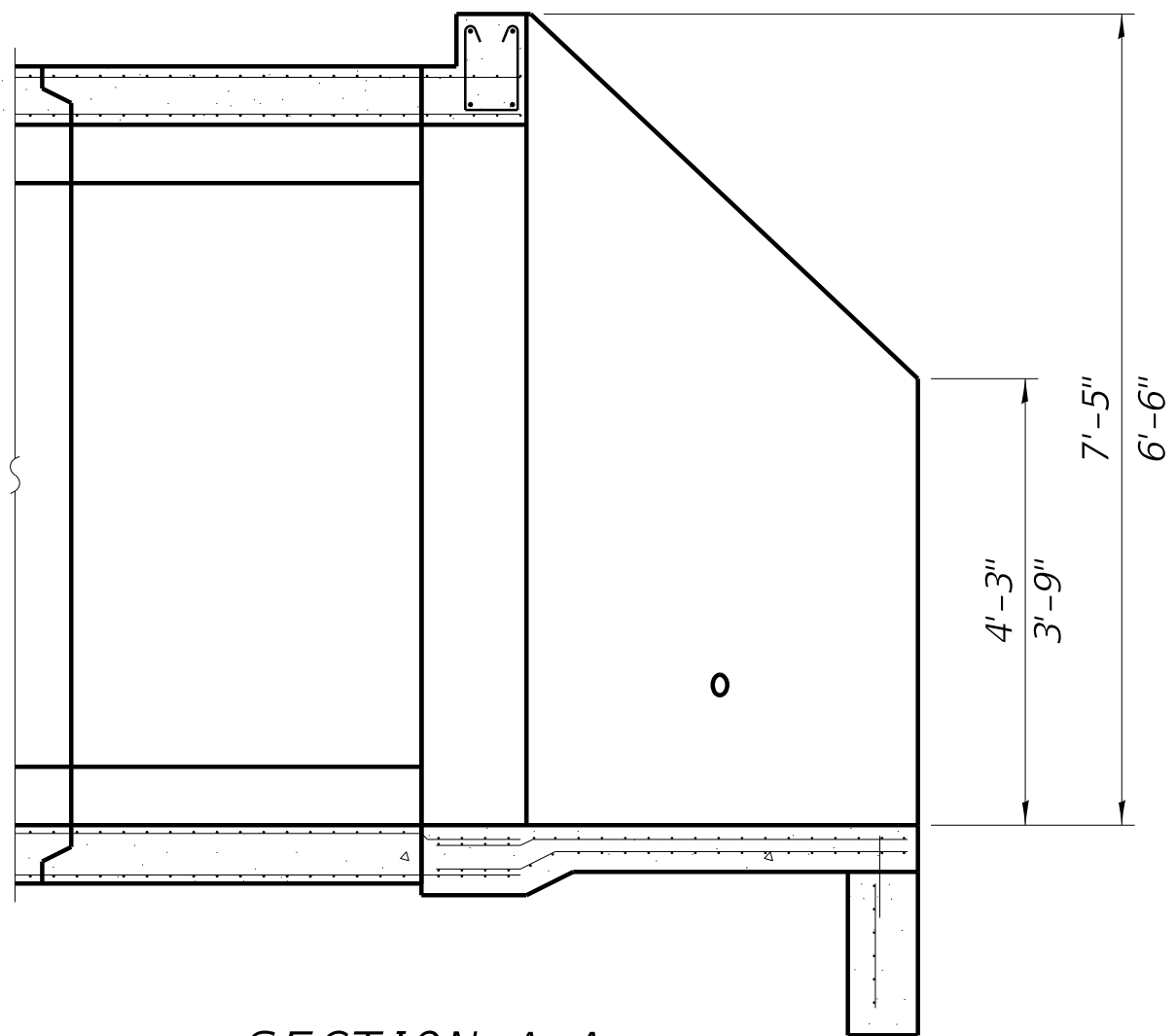
APRON END SECTION DIMENSIONS

							Double Cell		Triple Cell	
Span (S)	Rise (R)	Tt , Tb , & Ts	A	B	C	D	E	Concrete Cu. Yd.	E	Concrete Cu. Yd.
7'-0"	2'-0"	8"	3'-5"	2'-3"	2'-11 $\frac{3}{8}$ "	4'-2"	23'-9"	6.6		
7'-0"	3'-0"	8"	4'-5"	2'-9"	3'-11 $\frac{3}{8}$ "	5'-7"	25'-9 $\frac{1}{8}$ "	8.0		
7'-0"	4'-0"	8"	5'-5"	3'-3"	4'-11 $\frac{3}{8}$ "	7'-0"	27'-9 $\frac{1}{8}$ "	9.5		
7'-0"	5'-0"	8"	6'-5"	3'-9"	5'-11 $\frac{3}{8}$ "	8'-5"	29'-9 $\frac{1}{8}$ "	11.2		
7'-0"	6'-0"	8"	7'-5"	4'-3"	6'-11 $\frac{1}{2}$ "	9'-10"	31'-9 $\frac{1}{4}$ "	13.1		
8'-0"	2'-0"	8"	3'-5"	2'-3"	2'-11 $\frac{3}{8}$ "	4'-2"	25'-9"	7.1		
8'-0"	3'-0"	8"	4'-5"	2'-9"	3'-11 $\frac{3}{8}$ "	5'-7"	27'-9 $\frac{1}{8}$ "	8.6		
8'-0"	4'-0"	8"	5'-5"	3'-3"	4'-11 $\frac{3}{8}$ "	7'-0"	29'-9 $\frac{1}{8}$ "	10.2		
8'-0"	5'-0"	8"	6'-5"	3'-9"	5'-11 $\frac{3}{8}$ "	8'-5"	31'-9 $\frac{1}{8}$ "	11.9		
8'-0"	6'-0"	8"	7'-5"	4'-3"	6'-11 $\frac{1}{2}$ "	9'-10"	33'-9 $\frac{1}{4}$ "	13.8		
9'-0"	2'-0"	9"	3'-6"	2'-3"	3'-0 $\frac{3}{4}$ "	4'-4"	28'-3 $\frac{7}{8}$ "	8.2	39'-0 $\frac{7}{8}$ "	11.4
9'-0"	3'-0"	9"	4'-6"	2'-9"	4'-0 $\frac{3}{4}$ "	5'-9"	30'-3 $\frac{7}{8}$ "	9.7	41'-0 $\frac{7}{8}$ "	13.3
9'-0"	4'-0"	9"	5'-6"	3'-3"	5'-0 $\frac{3}{4}$ "	7'-2"	32'-3 $\frac{7}{8}$ "	11.4	43'-0 $\frac{7}{8}$ "	15.4
9'-0"	5'-0"	9"	6'-6"	3'-9"	6'-0 $\frac{3}{8}$ "	8'-7"	34'-4"	13.2	45'-1"	17.6
9'-0"	6'-0"	9"	7'-6"	4'-3"	7'-0 $\frac{1}{8}$ "	9'-11"	36'-2 $\frac{5}{8}$ "	15.1	46'-11 $\frac{5}{8}$ "	19.8
10'-0"	2'-0"	10"	3'-7"	2'-4"	3'-1 $\frac{1}{2}$ "	4'-5"	30'-9 $\frac{1}{4}$ "	9.2	42'-8 $\frac{1}{4}$ "	13.0
10'-0"	3'-0"	10"	4'-7"	2'-10"	4'-1 $\frac{1}{2}$ "	5'-10"	32'-9 $\frac{1}{4}$ "	10.8	44'-8 $\frac{1}{4}$ "	15.0
10'-0"	4'-0"	10"	5'-7"	3'-4"	5'-1 $\frac{1}{2}$ "	7'-3"	34'-9 $\frac{3}{8}$ "	12.6	46'-8 $\frac{3}{8}$ "	17.2
10'-0"	5'-0"	10"	6'-7"	3'-10"	6'-1 $\frac{1}{2}$ "	8'-8"	36'-9 $\frac{3}{8}$ "	14.5	48'-8 $\frac{3}{8}$ "	19.5
10'-0"	6'-0"	10"	7'-7"	4'-4"	7'-1 $\frac{1}{2}$ "	10'-1"	38'-9 $\frac{3}{8}$ "	16.6	50'-8 $\frac{3}{8}$ "	22.0
11'-0"	2'-0"	11"	3'-8"	2'-4"	3'-2 $\frac{5}{8}$ "	4'-7"	33'-4 $\frac{1}{8}$ "	10.4	46'-5 $\frac{1}{8}$ "	14.7
11'-0"	3'-0"	11"	4'-8"	2'-10"	4'-2 $\frac{7}{8}$ "	6'-0"	35'-4 $\frac{1}{8}$ "	12.1	48'-5 $\frac{1}{8}$ "	16.9
11'-0"	4'-0"	11"	5'-8"	3'-4"	5'-2 $\frac{1}{4}$ "	7'-4"	37'-2 $\frac{3}{4}$ "	13.9	50'-3 $\frac{3}{4}$ "	19.1
11'-0"	5'-0"	11"	6'-8"	3'-10"	6'-2 $\frac{1}{4}$ "	8'-9"	39'-2 $\frac{7}{8}$ "	15.8	52'-3 $\frac{7}{8}$ "	21.4
11'-0"	6'-0"	11"	7'-8"	4'-4"	7'-2 $\frac{1}{4}$ "	10'-2"	41'-2 $\frac{7}{8}$ "	18.1	54'-3 $\frac{7}{8}$ "	24.2
12'-0"	2'-0"	12"	3'-9"	2'-5"	3'-3 $\frac{5}{8}$ "	4'-8"	35'-9 $\frac{1}{2}$ "	11.6	50'-0 $\frac{1}{2}$ "	16.5
12'-0"	3'-0"	12"	4'-9"	2'-11"	4'-3 $\frac{5}{8}$ "	6'-1"	37'-9 $\frac{1}{2}$ "	13.4	52'-0 $\frac{1}{2}$ "	18.8
12'-0"	4'-0"	12"	5'-9"	3'-5"	5'-3 $\frac{5}{8}$ "	7'-6"	39'-9 $\frac{5}{8}$ "	15.4	54'-0 $\frac{5}{8}$ "	21.2
12'-0"	5'-0"	12"	6'-9"	3'-11"	6'-3 $\frac{5}{8}$ "	8'-11"	41'-9 $\frac{5}{8}$ "	17.6	56'-0 $\frac{5}{8}$ "	23.8
12'-0"	6'-0"	12"	7'-9"	4'-5"	7'-3 $\frac{5}{8}$ "	10'-4"	43'-9 $\frac{5}{8}$ "	19.8	58'-0 $\frac{5}{8}$ "	26.6

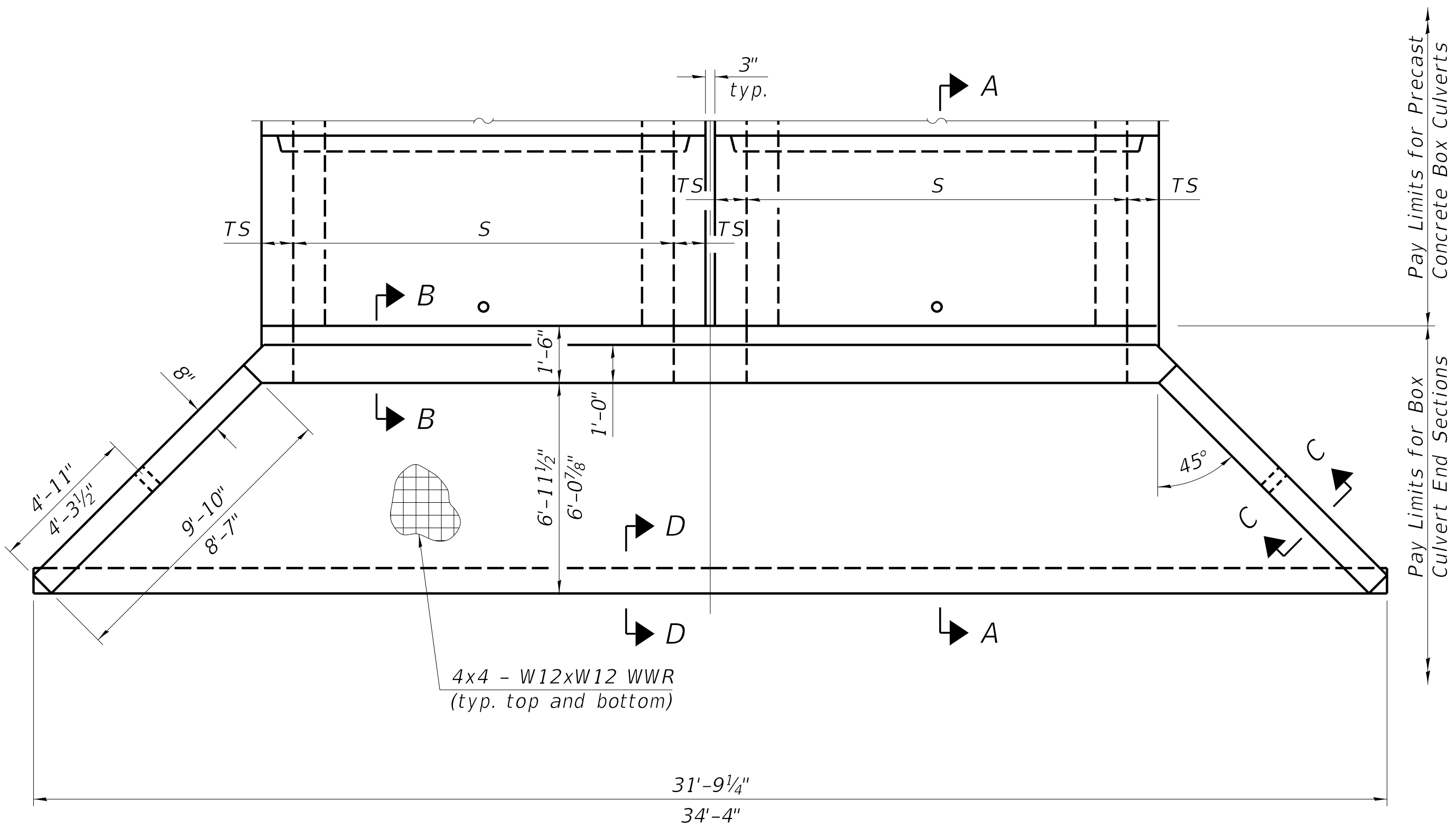
(Sheet 1 of 2)



END VIEW



SECTION A-A



PLAN



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9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500



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100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

				DSGN.	CPF	JMB
				DWN.	PDR	
				CHKD.	JMB	
				SCALE:	1'	
				PLOT DATE:	10/6/2025	
				CAD USER:	mkoonce	
				CHKD. MODEL:	Default	
NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:	Default	
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TITLE:

CRYSTAL CREEK
DAYLIGHTING PROJECT
APRON END SECTIONS AND DETAILS

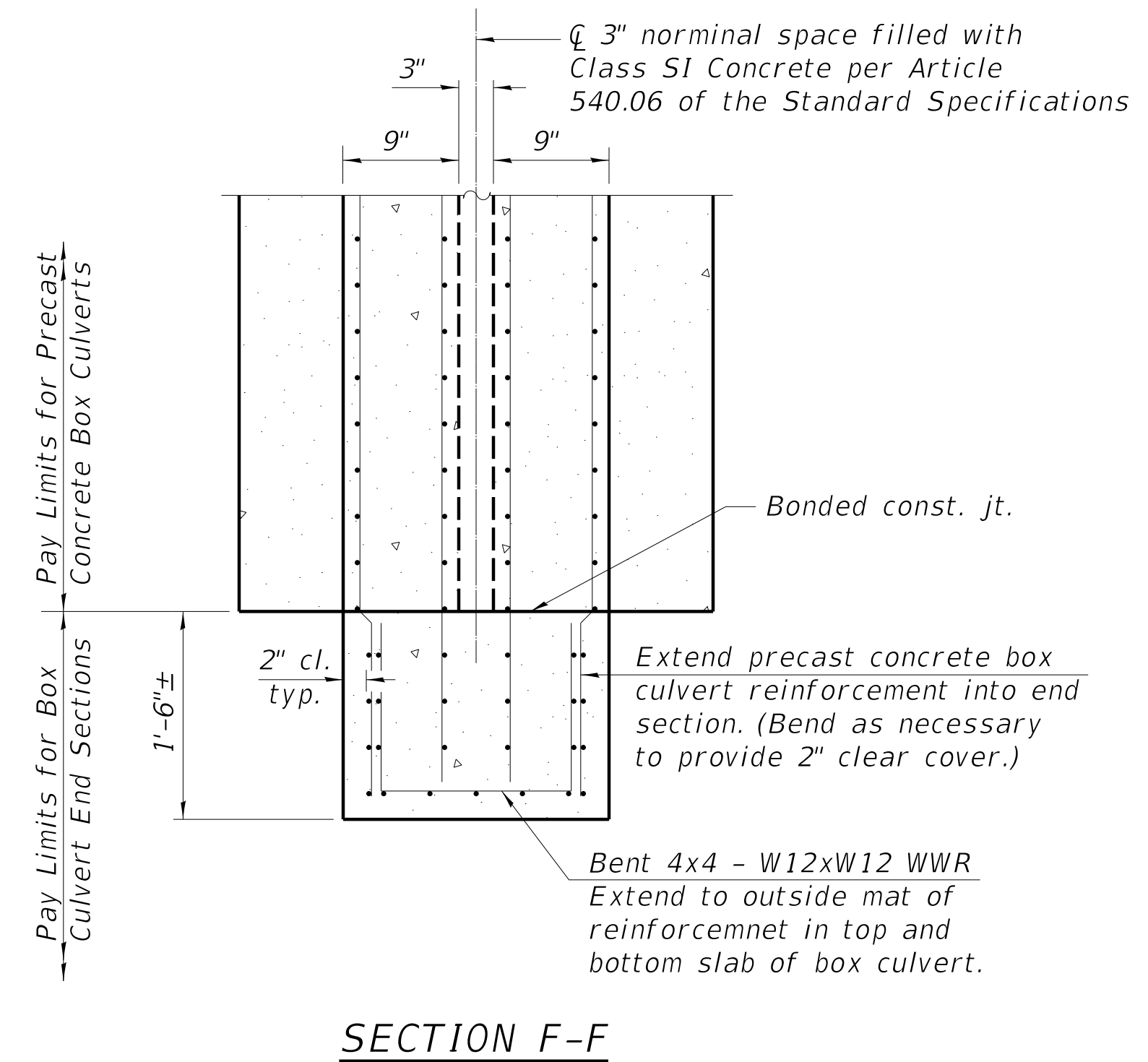
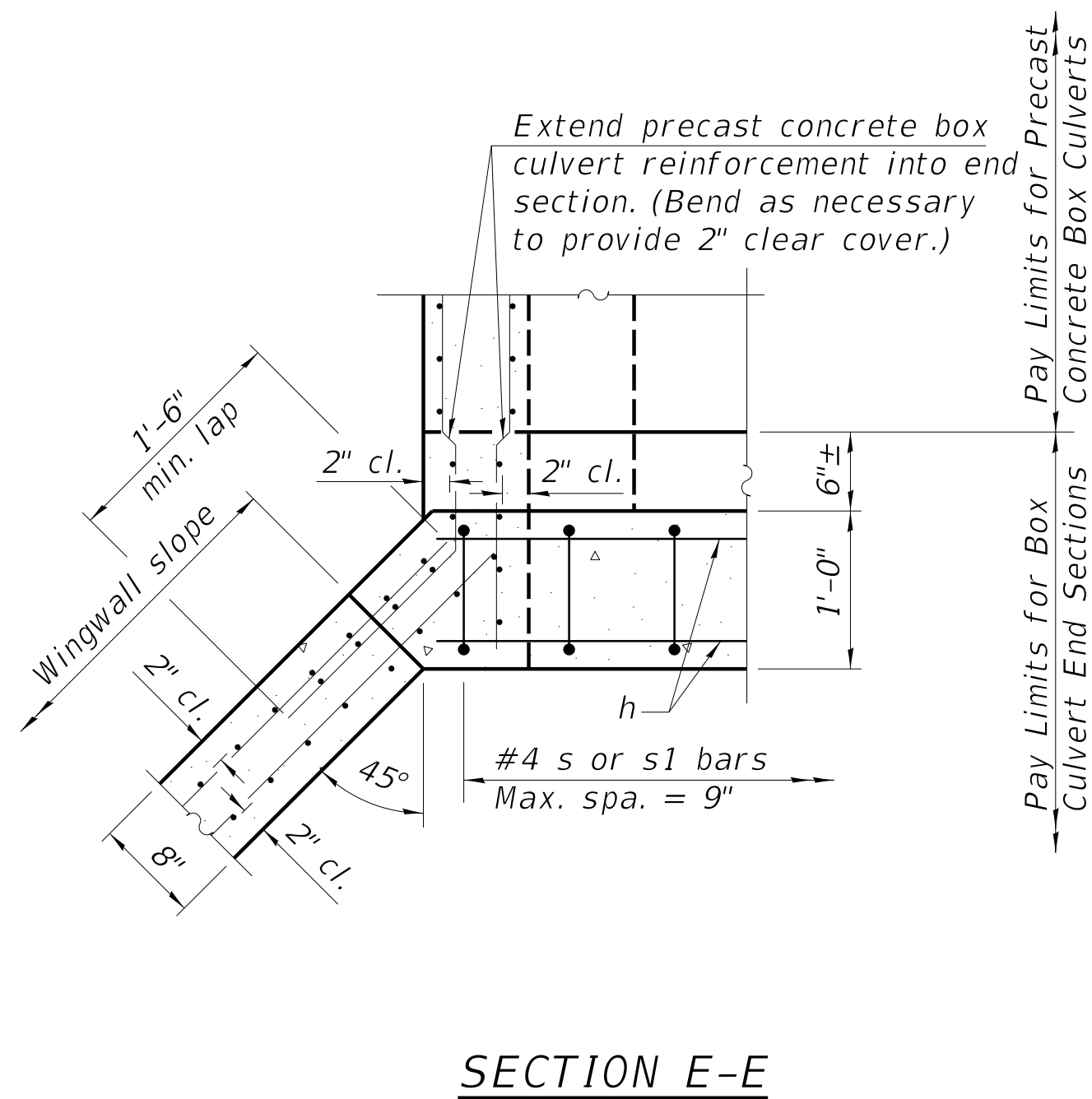
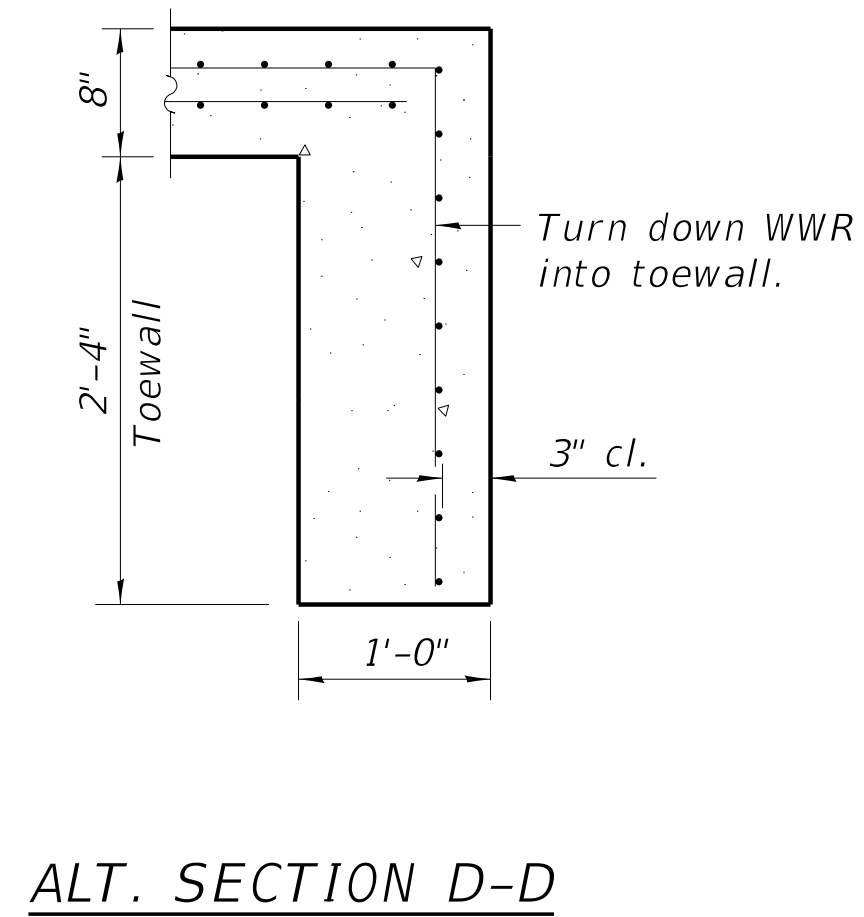
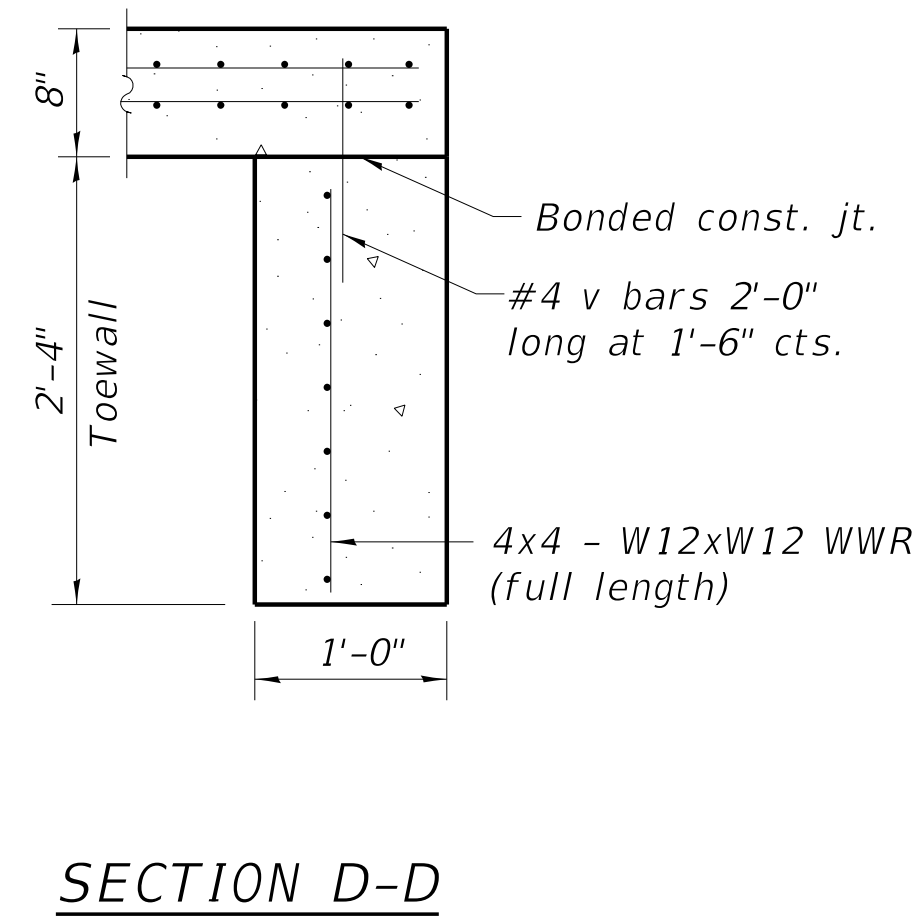
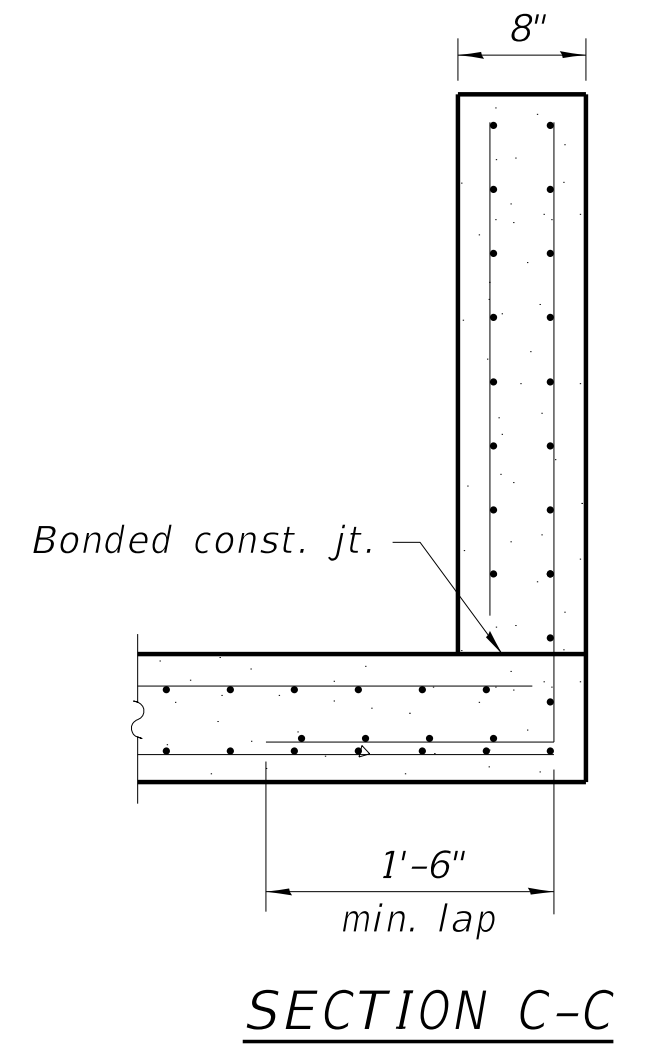
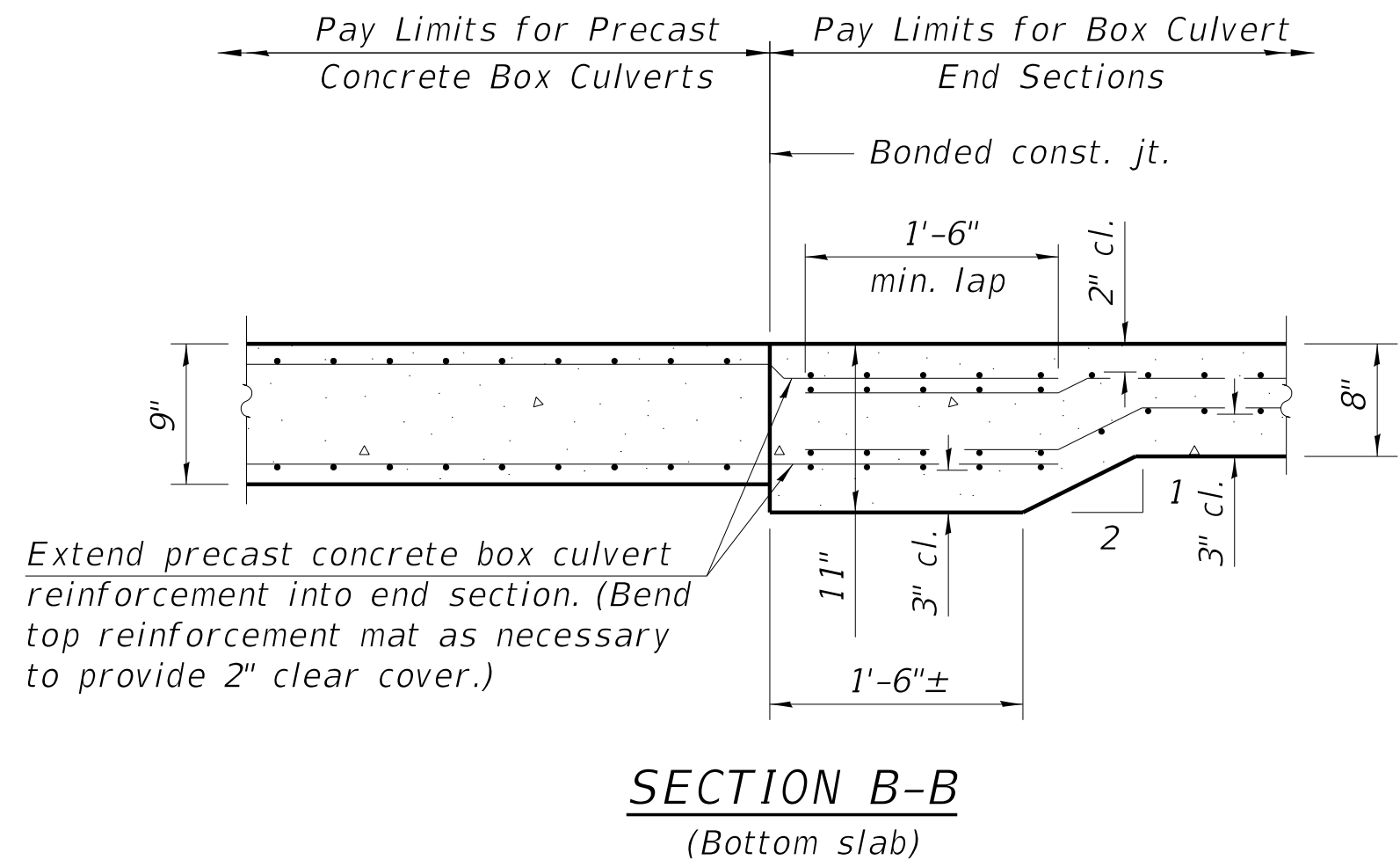
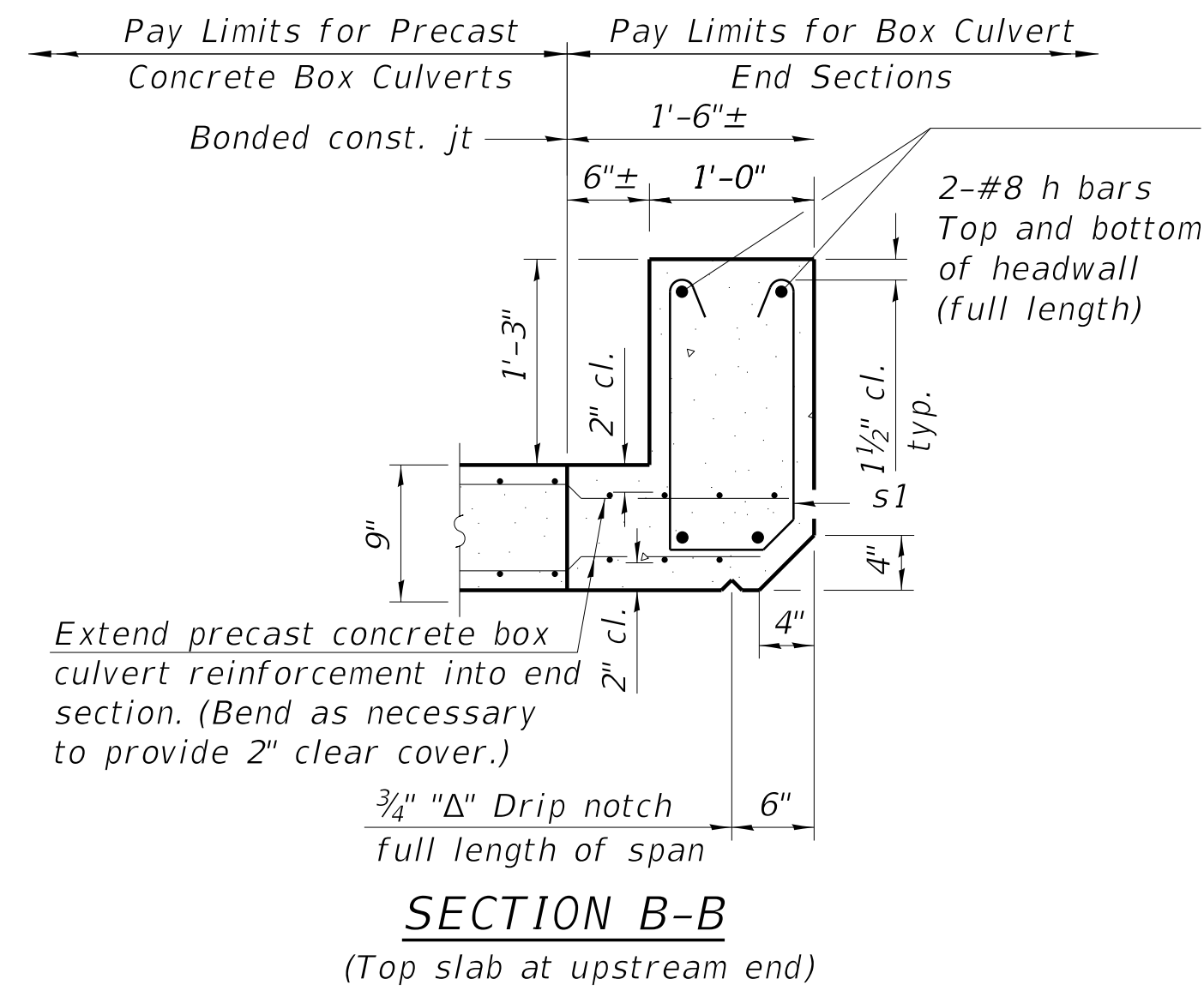
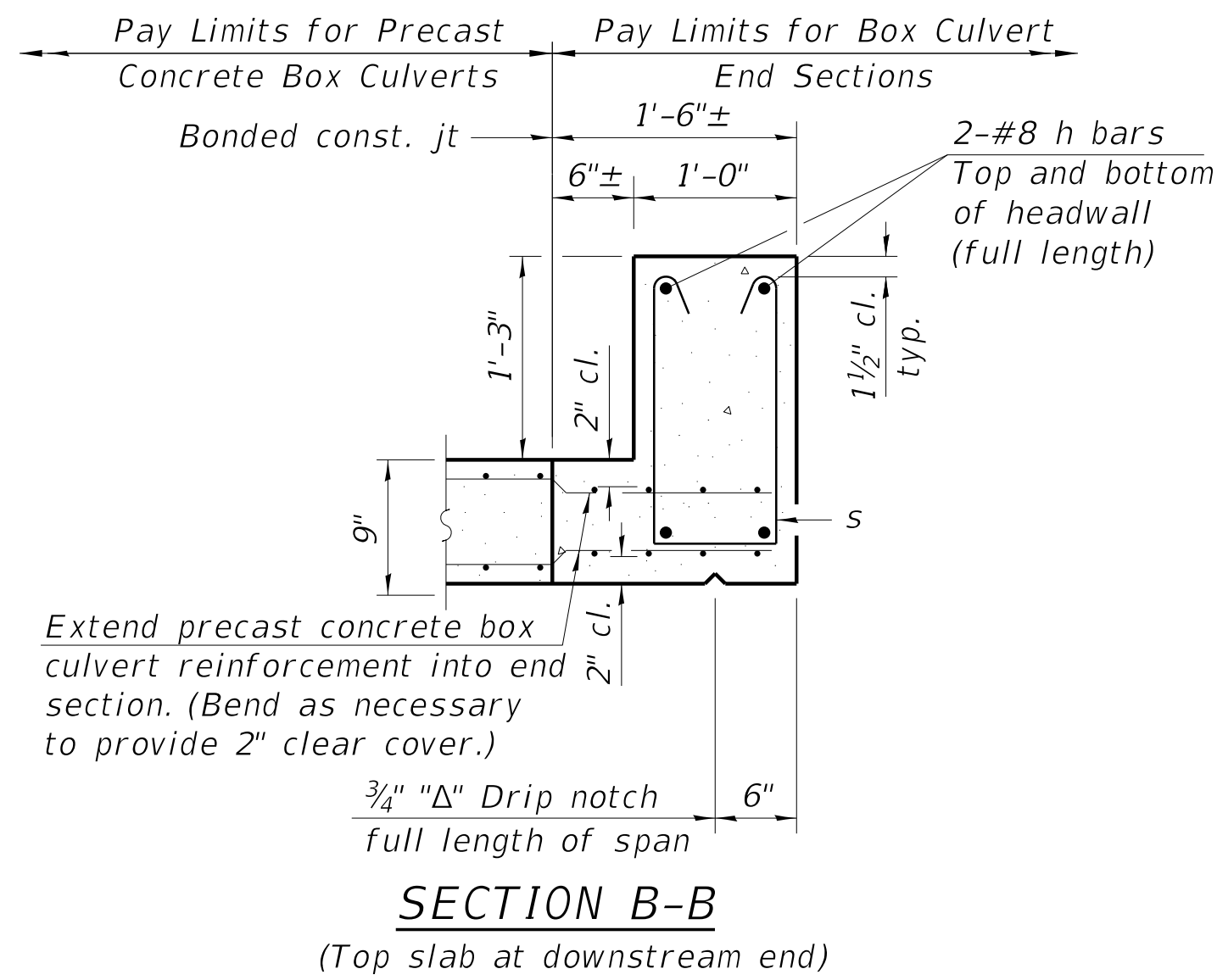
PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 63 OF 93

DRAWING NO.

63

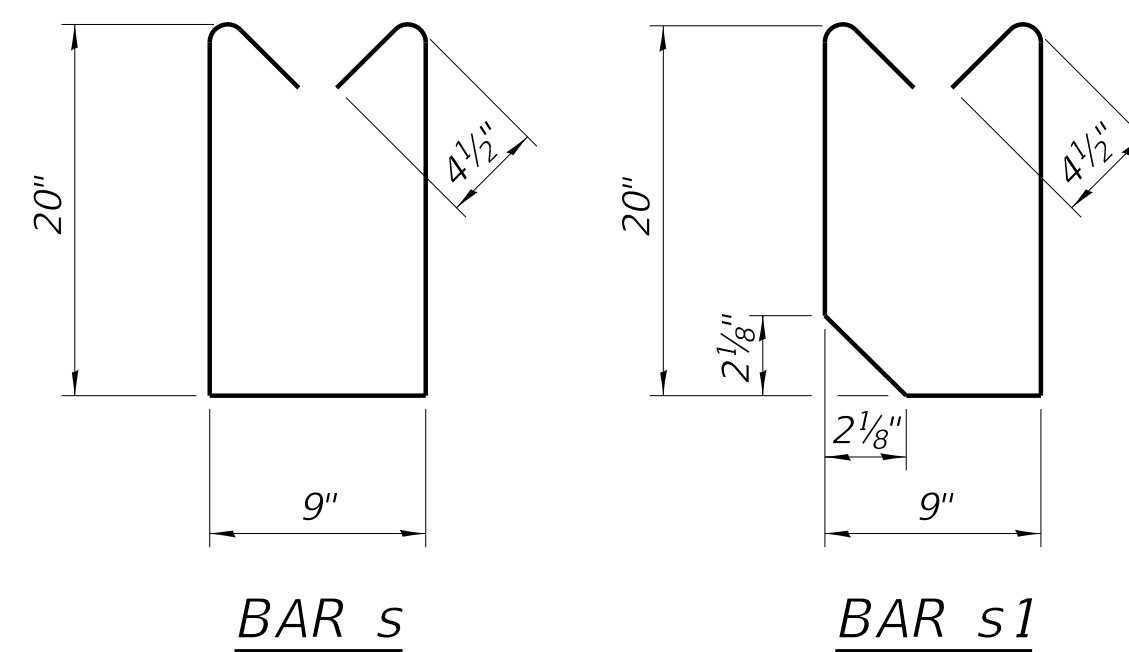


TOEWALL CONSTRUCTION SEQUENCE

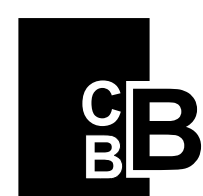
1. Perform excavation and construct toewall.
2. Backfill accordingly and prepare bedding for box culvert end sections.
3. Construct remainder of box culvert end section.

Note:

If soil conditions permit, the toewall may be poured monolithically with the bottom slab of the end section using Alt. Section D-D subject to approval from the Engineer.



(Sheet 2 of 2)



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9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:



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100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

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DWN.	PDR				
CHKD.	JMB				
SCALE:	1'				
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TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
APRON END SECTIONS AND DETAILS**

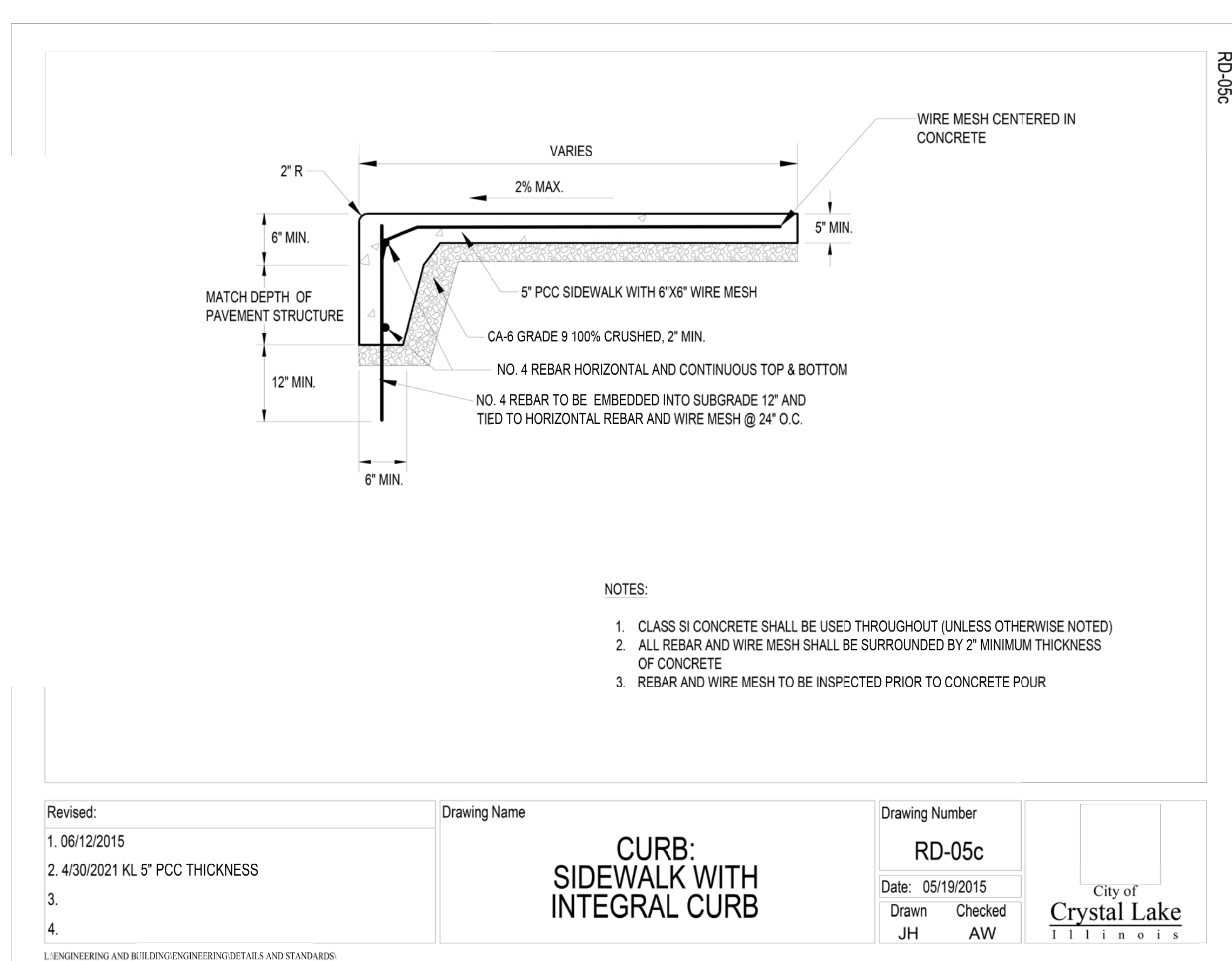
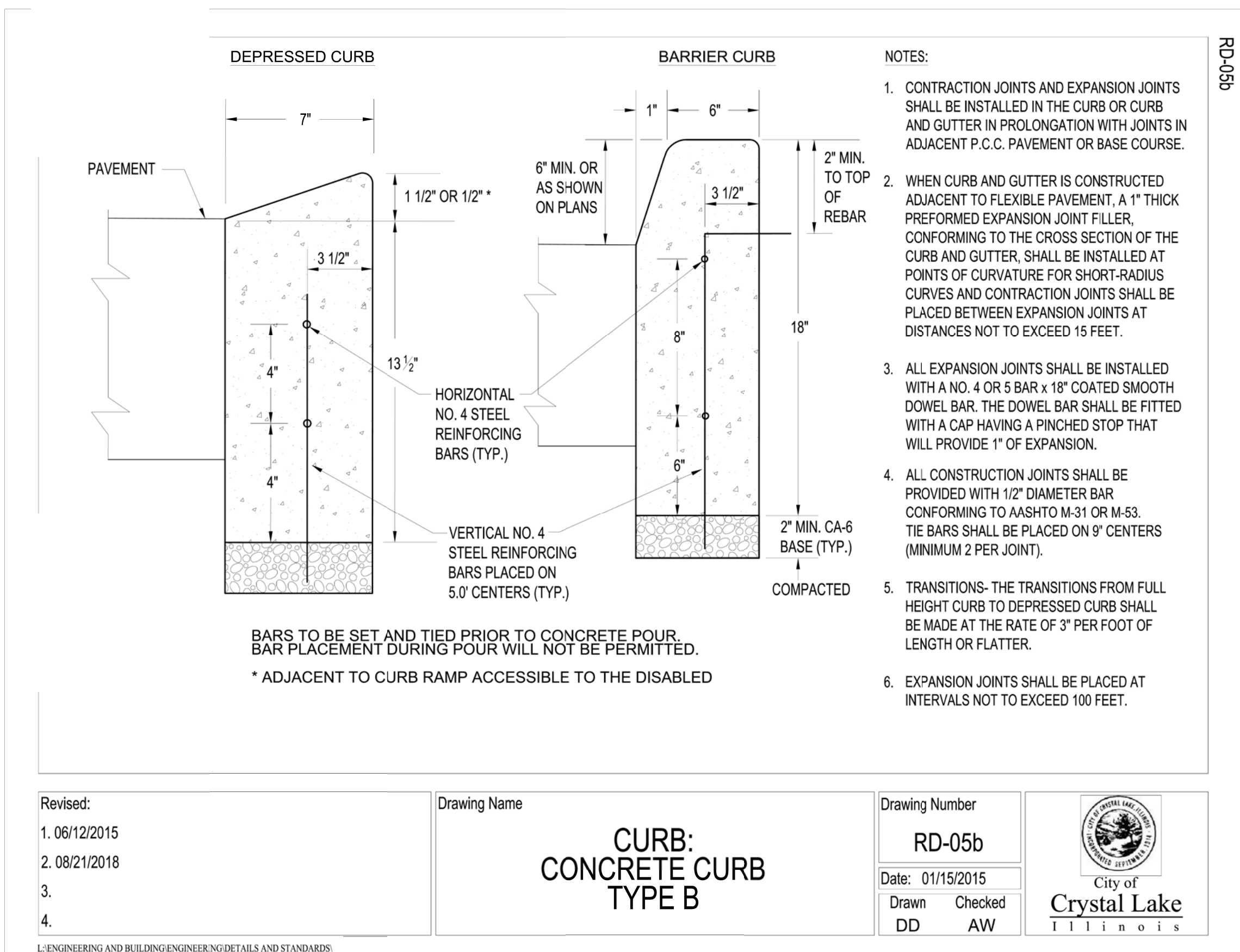
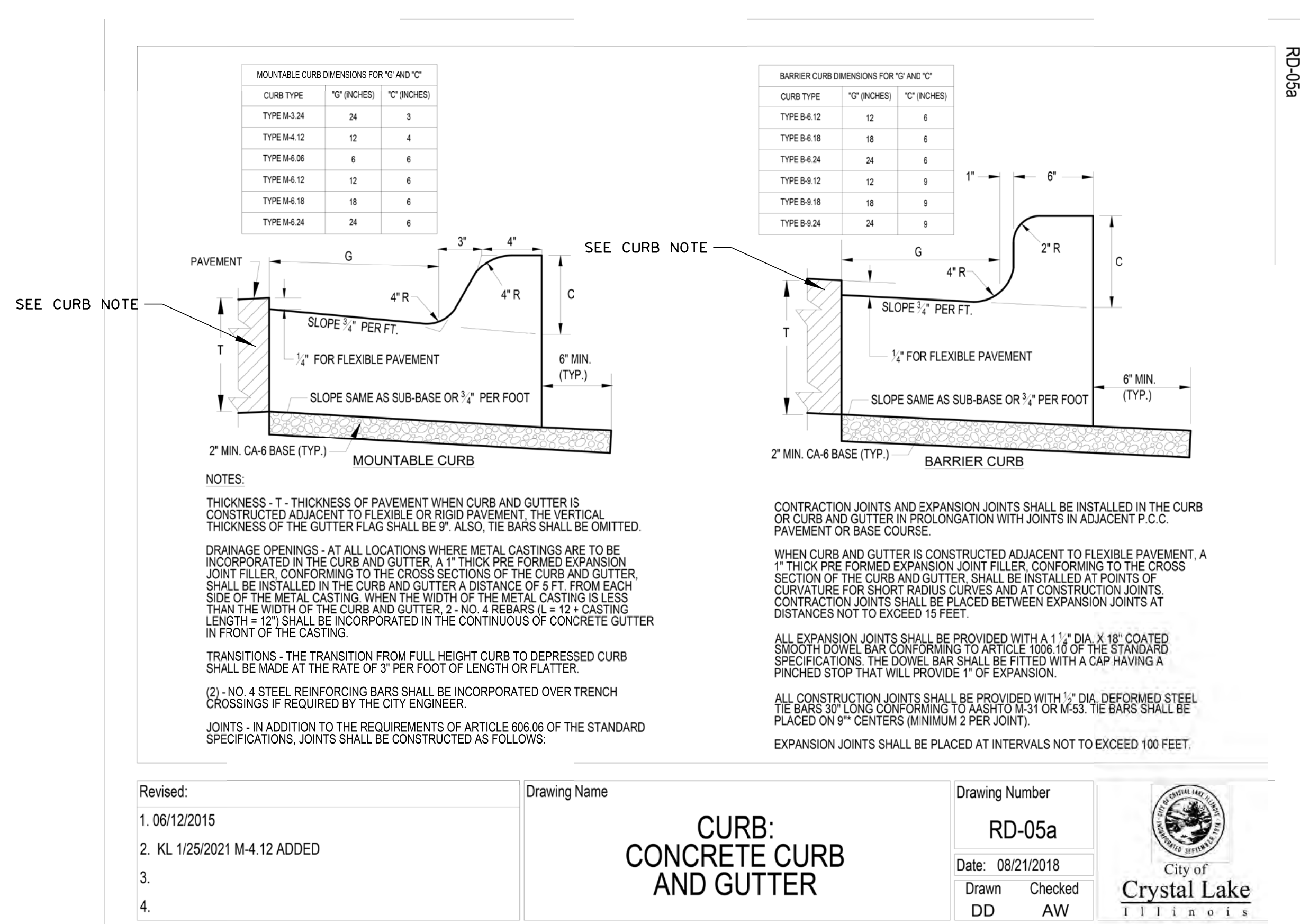
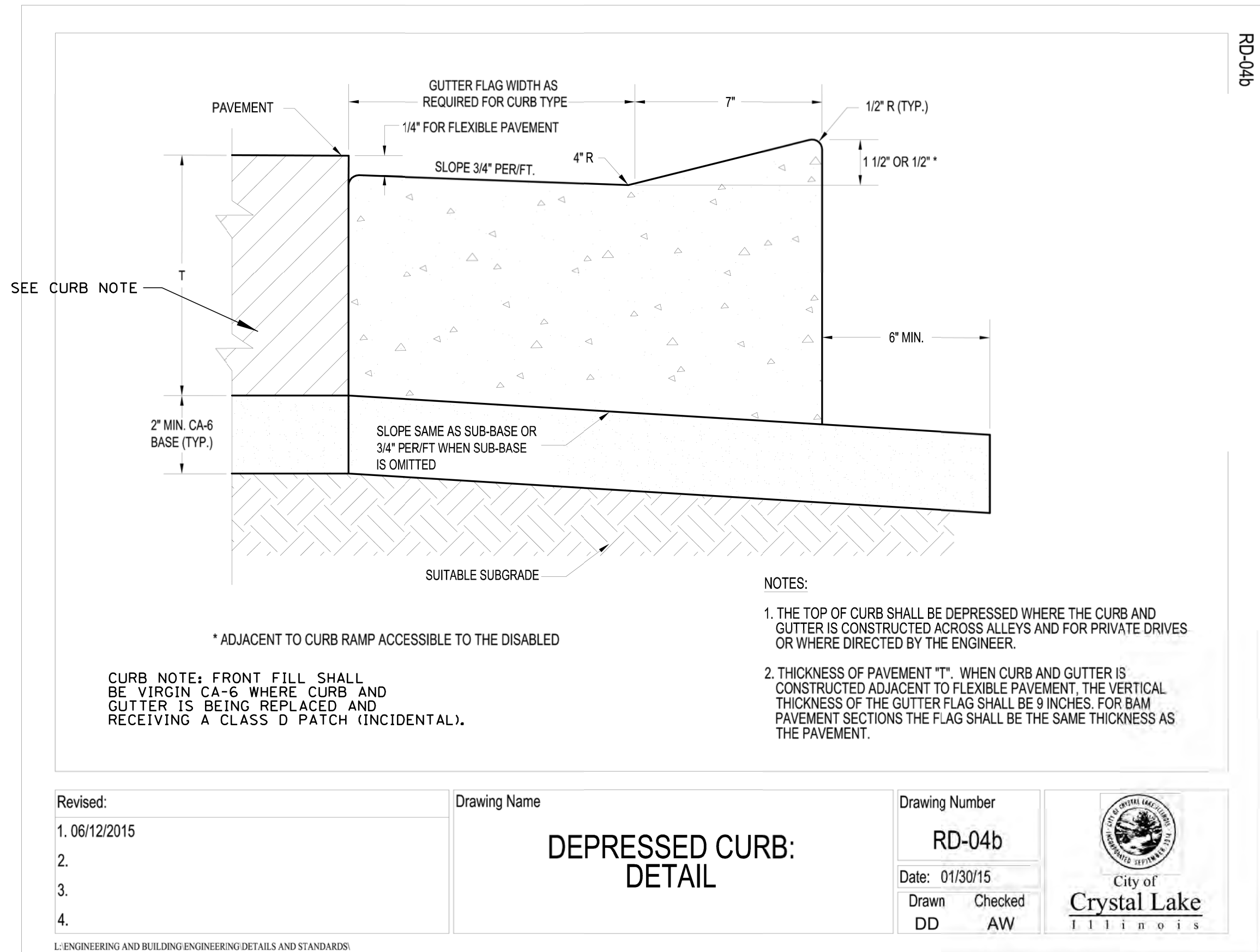
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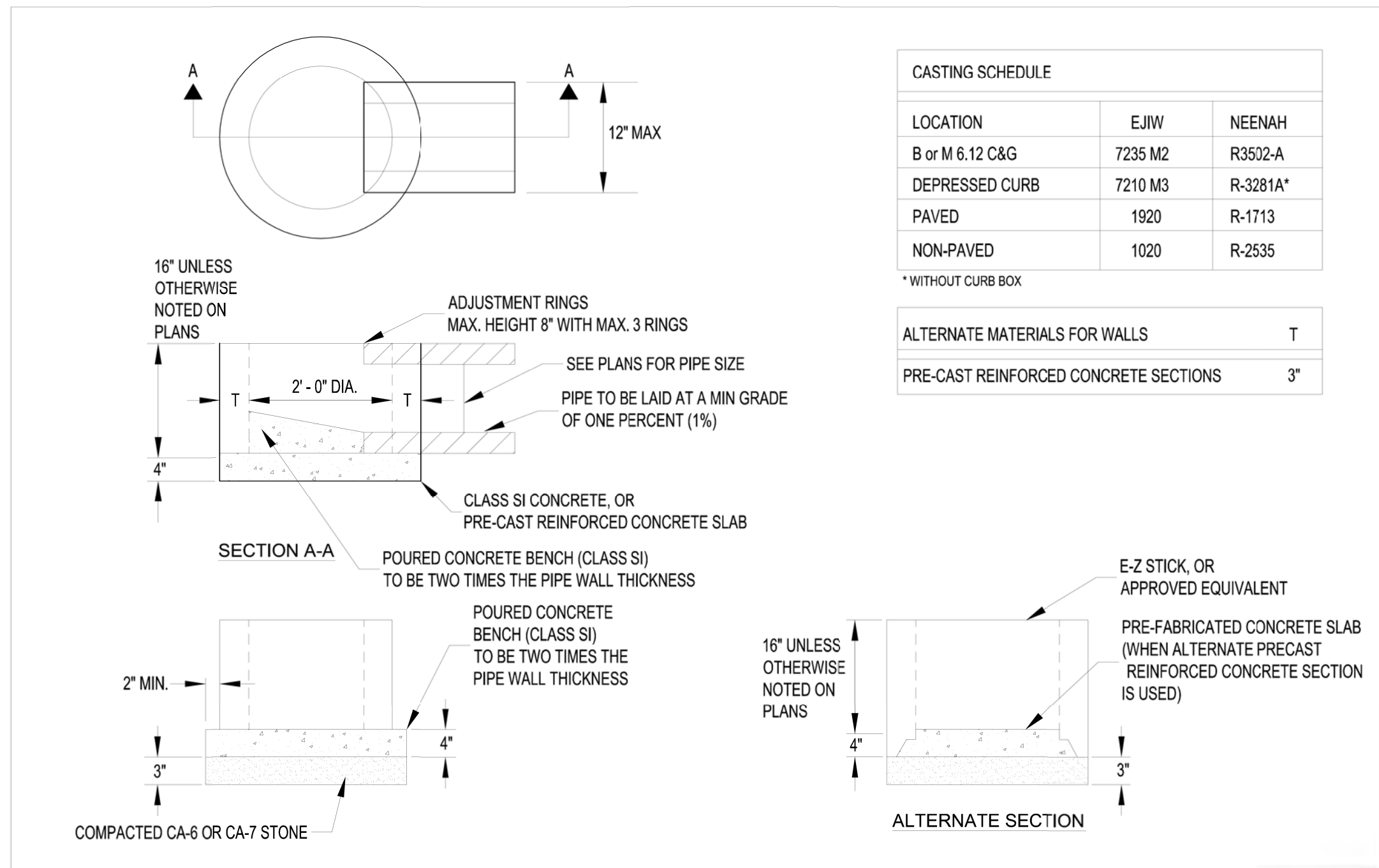
DATE: 10/6/2025

SHEET 64 OF 93

DRAWING NO.

64





Revised: 1. 06/12/2015
2.
3.
4.

Drawing Name: **DRAINAGE STRUCTURES: INLET, TYPE A**

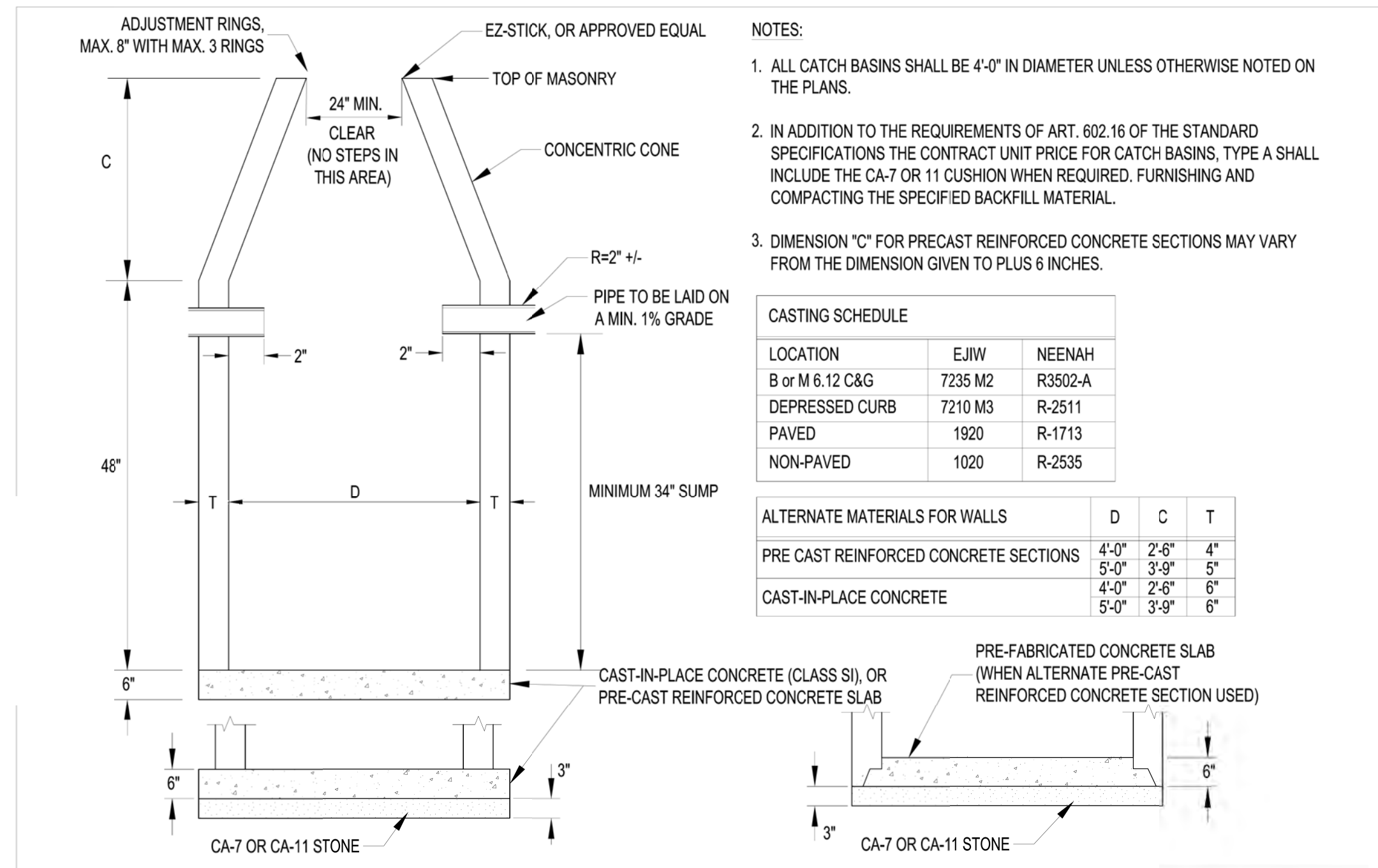
Drawing Number: **UD-01a**

Date: 05/28/2015

Drawn: JH, Checked: AW

City of Crystal Lake, Illinois

L:ENGINEERING AND BUILDING ENGINEERING DETAILS AND STANDARDS



Revised: 1. 06/12/2015
2. 08/18/2023
3.
4.

Drawing Name: **CATCH BASIN TYPE A**

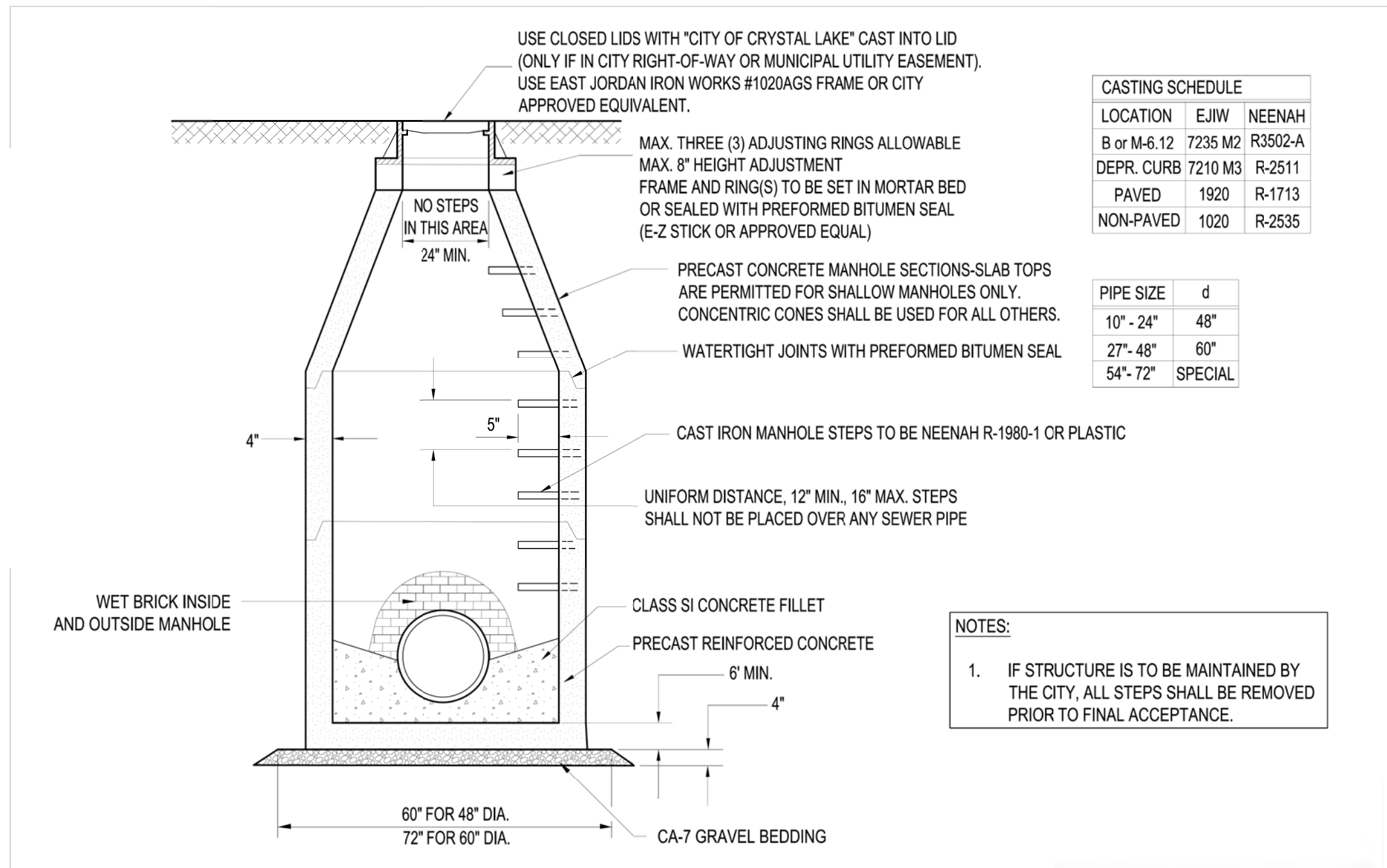
Drawing Number: **UD-01b**

Date: 09/18/2012

Drawn: DD, Checked: AW

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Revised: 1. 06/12/2015
2. 08/18/2023 JRG NOTE 1
3.
4.

Drawing Name: **STORM MANHOLE TYPE A**

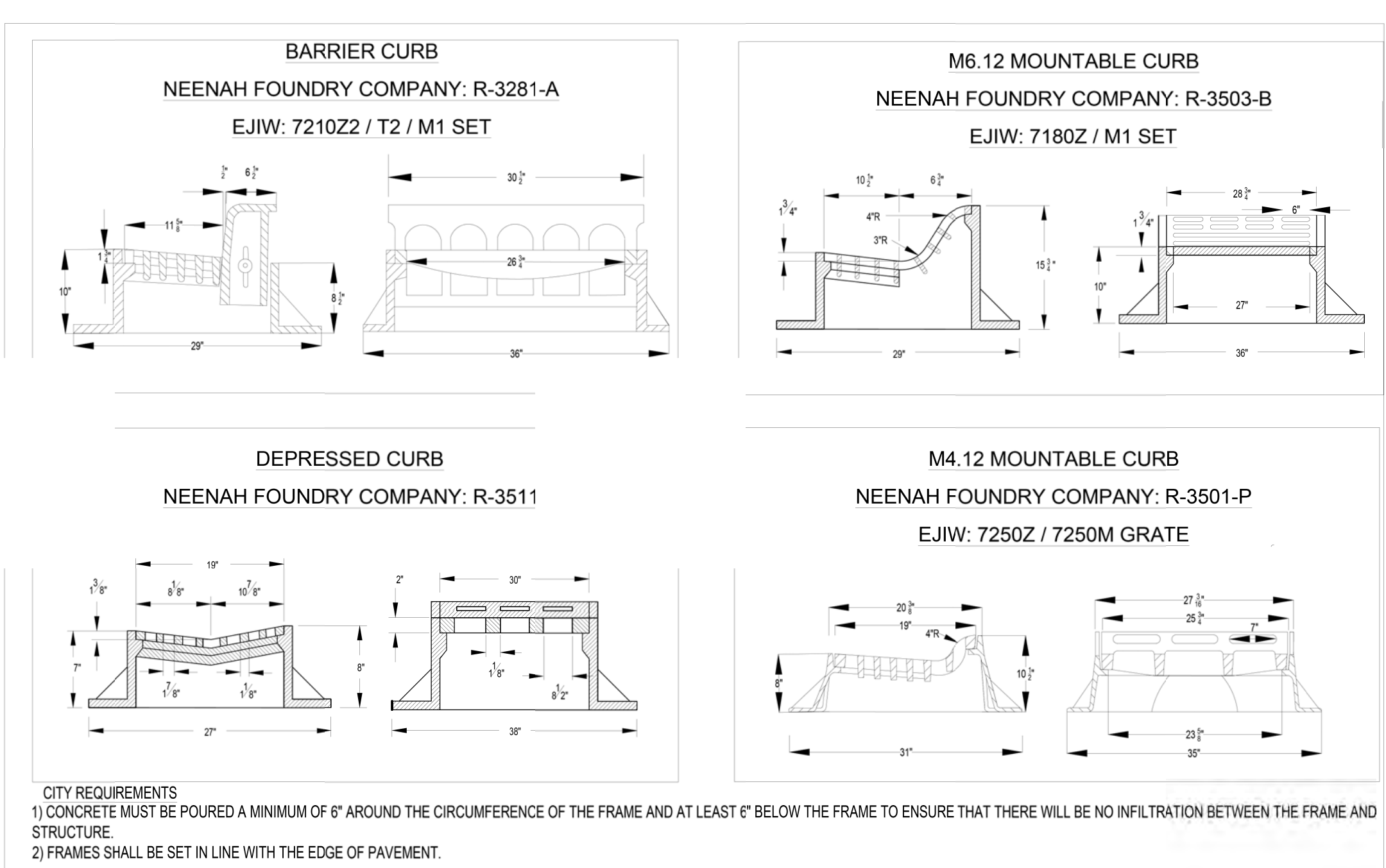
Drawing Number: **UD-01d**

Date: 05/19/2015

Drawn: JH, Checked: AW

City of Crystal Lake, Illinois

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Revised: 1. 06/12/2015
2. 01/25/2021 KL ADDED R-3281-A, R-3503-B, AND R3501-P
3.
4.

Drawing Name: **CURB INLET FRAME AND GRATE**

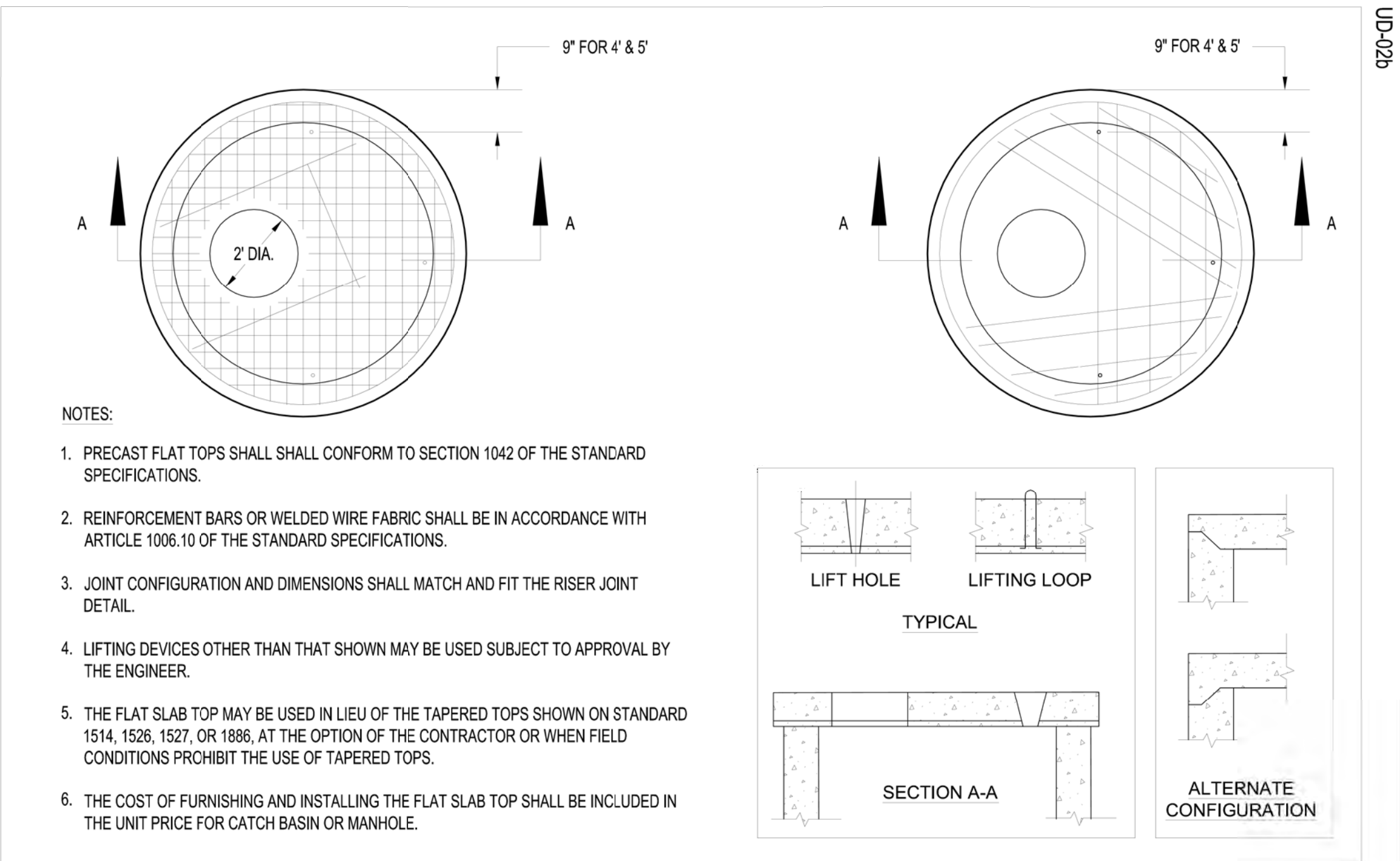
Drawing Number: **UD-02a**

Date: 5/28/2015

Drawn: JH, Checked: AW

City of Crystal Lake, Illinois

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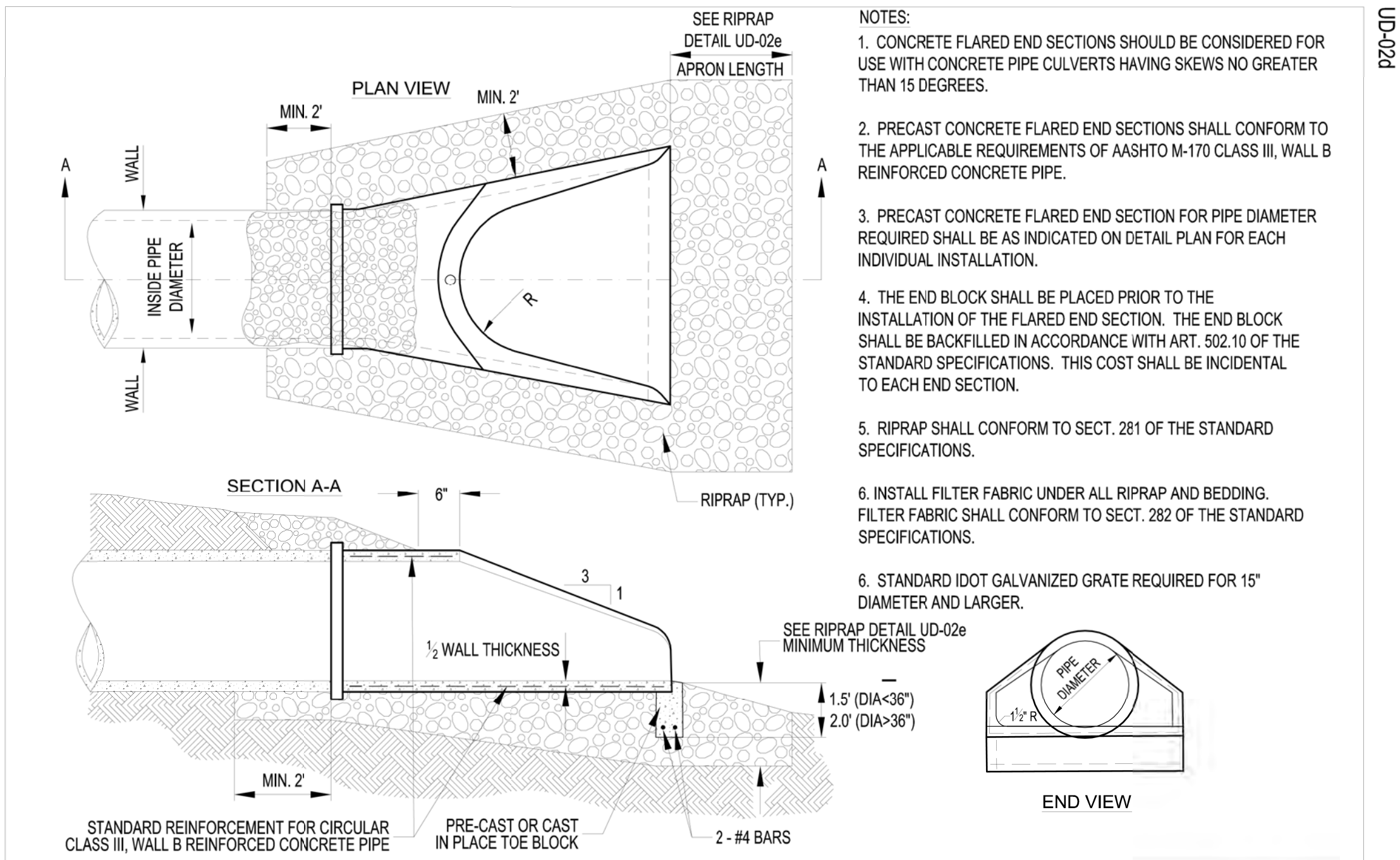


Revised:
1. 06/12/2015
2.
3.
4.

Drawing Name
**ECCENTRIC FLAT TOPS
FOR CURB INLET
STORM MANHOLES**

Drawing Number
UD-02b
Date: 01/30/15
Drawn DD Checked AW

City of
Crystal Lake
Illinois



Revised:
1. 06/12/2015
2. 8/27/2015
3.
4.

Drawing Name
**FLARED END SECTION
(PRECAST CONCRETE PIPE)**

Drawing Number
UD-02d
Date: 04/15/2007
Drawn DD Checked AW

City of
Crystal Lake
Illinois

ROCK RIPRAP SPECIFICATIONS AND BEDDING					
IDOT GRADATION	MAXIMUM ROCK SIZE (lb)*	EQUIVALENT DIAMETER (SPHERICAL)(in)*	MINIMUM BEDDING THICKNESS (in)	MINIMUM THICKNESS (in)	
RR-3	50	10	-	8	
RR-4	150	15	6	16	
RR-5	400	21	8	22	
RR-6	600	24	10	26	
RR-7	1000	28	12	30	

*ASSUMES A MINIMUM SPECIFIC GRAVITY OF 2.450 AND A MINIMUM UNIT WEIGHT OF 153 lb/cf

ROCK RIPRAP SIZE REQUIREMENTS AND THICKNESS							
CULVERT DIAMETER (in)	MINIMUM TAILWATER				MAXIMUM TAILWATER		
	MAX CONDUIT VELOCITY = 5 fps		MAX CONDUIT VELOCITY = 10 fps		MAX CONDUIT VELOCITY = 5 fps		MAX CONDUIT VELOCITY = 10 fps
	IDOT GRADATION	APRON LENGTH (ft)	IDOT GRADATION	APRON LENGTH (ft)	IDOT GRADATION	APRON LENGTH (ft)	IDOT GRADATION
12	RR-3	10	RR-3	12	RR-3	12	RR-3
18	RR-3	14	RR-4	16	RR-3	12	RR-3
24	RR-3	16	RR-4	20	RR-3	14	RR-4
30	RR-3	18	RR-4	22	RR-3	16	RR-4
36	RR-4	20	RR-5	24	RR-3	16	RR-4
48	RR-4	24	RR-6	28	RR-4	20	RR-4
60	RR-5	32	RR-6	36	RR-4	22	RR-5
72	RR-6	40	RR-6	44	RR-5	24	RR-5
96	RR-7	50	RR-7	54	RR-5	26	RR-5

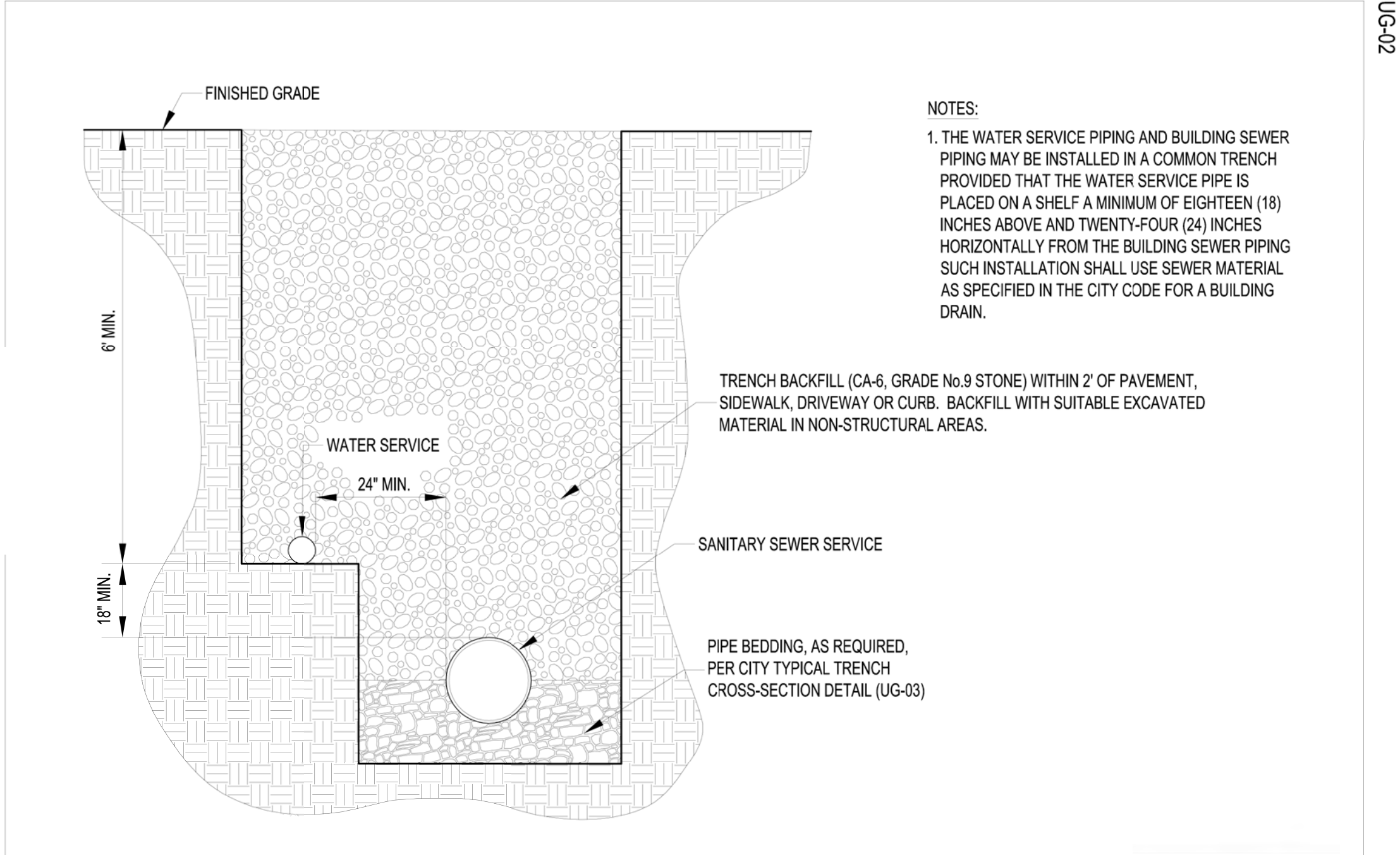
NOTES:
1. IF TAILWATER DEPTH FROM THE PIPE INVERT IS LESS THAN HALF THE DIAMETER OF THE PIPE, THEN MINIMUM TAILWATER CONDITIONS EXIST.
2. ADAPTED FROM THE ILLINOIS URBAN MANUAL

Revised:
1.
2.
3.
4.

Drawing Name
RIPRAP DETAILS

Drawing Number
UD-02e
Date: 08/27/2015
Drawn DD Checked AW

City of
Crystal Lake
Illinois



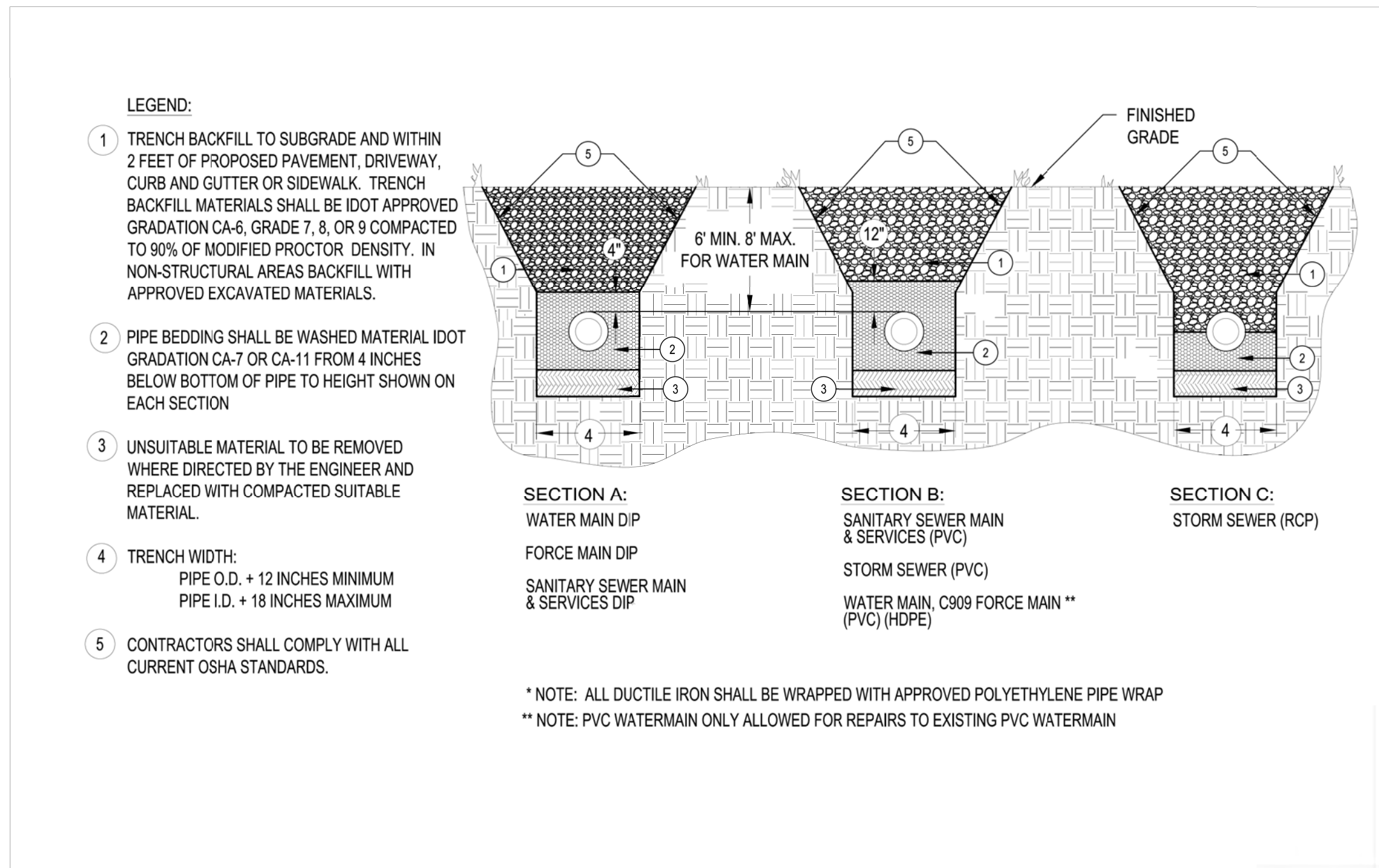
Revised:
1. 06/12/2015
2.
3.
4.

Drawing Name
**COMMON
WATER/SANITARY
SERVICE TRENCH**

Drawing Number
UG-02
Date: 04/15/2007
Drawn EM Checked LZ

City of
Crystal Lake
Illinois

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					DWN.	MAK	
					CHKD.	JGS	WJS
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					PLOT DATE:	10/6/2025	
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					MODEL:	Default	
NO.	DATE	NATURE OF REVISION			CHKD.		
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UG-03

Revised:

- 06/12/2015
- 02/04/2021 KL CA-7 WASHED STONE
- 07/14/2023 JRG PVC ALLOWED ONLY AS STATED
-

Drawing Name

TYPICAL TRENCH CROSS SECTION

Drawing Number

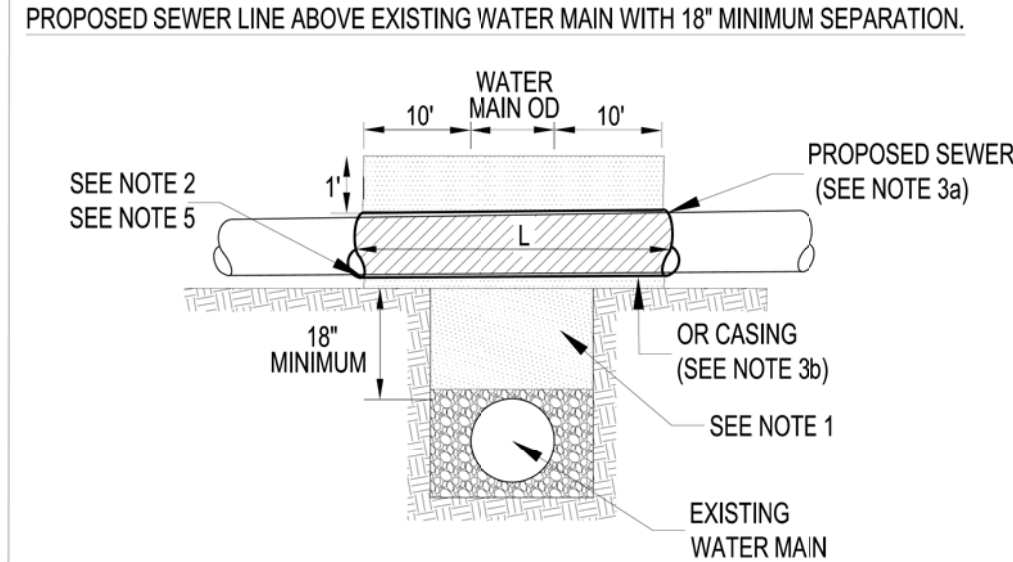
UG-03

Date: 05/29/2015

Drawn: JH
Checked: AW

City of
Crystal Lake
Illinois

L:\ENGINEERING AND BUILDING\ENGINEERING DETAILS AND STANDARDS



- NOTES
- IF THE SELECT GRANULAR BACKFILL EXISTS; REMOVE WITHIN WIDTH OF PROPOSED SEWER TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
 - OMIT SELECT GRANULAR CRADLE AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF THE WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT OVER LENGTH "L".
 - 3a. CONSTRUCT "L" FEET OF PROPOSED SEWER OF WATER MAIN MATERIAL AND PRESSURE TEST, OR
 - 3b. USE CASING LENGTH "L" FOR PROPOSED SEWER AND SEAL ENDS OF CASING. SEE UW-14 FOR CASING DETAILS.
 - POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND WATER MAIN.
 - PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH.

ADDITIONAL NOTES:
*THE REQUIREMENTS ON THIS DETAIL ARE TAKEN FROM THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, CURRENT EDITION
CLASS IV MATERIAL TO BE COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY
OUTER DIAMETER = OD

Revised:

- 06/12/2015
- 8/18/2023 JRG - SEWER AND WATER 2014 UPDATE
-
-

Drawing Name

WATER AND SEWER SEPARATION REQUIREMENTS

Drawing Number

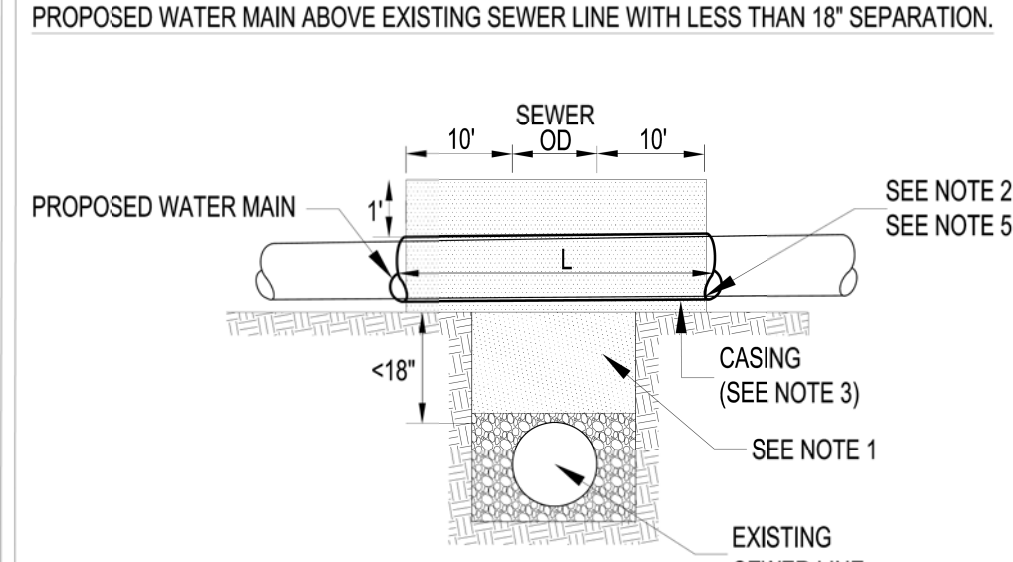
UG-04a

Date: 04/15/2007

Drawn: EM
Checked: AW

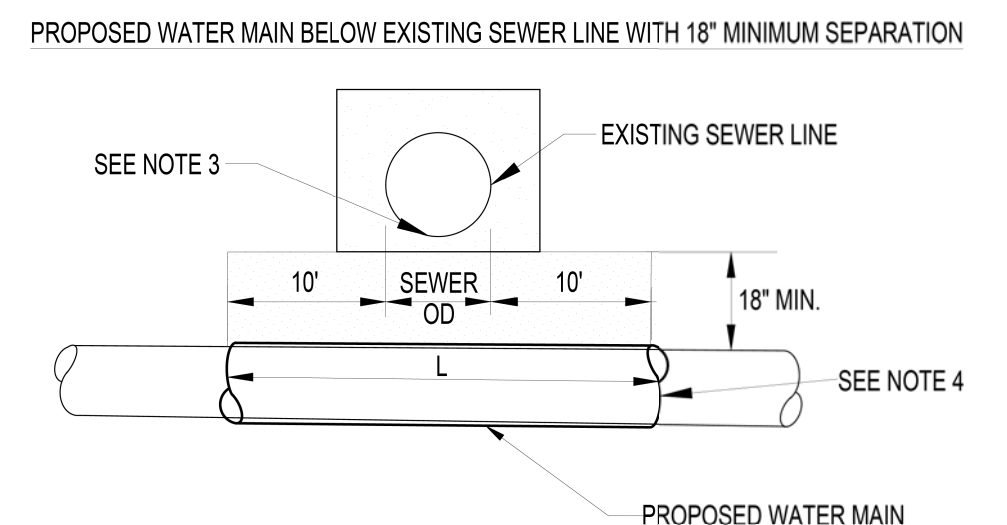
City of
Crystal Lake
Illinois

L:\ENGINEERING AND BUILDING\ENGINEERING DETAILS AND STANDARDS



- NOTES
- IF THE SELECT GRANULAR BACKFILL EXISTS; REMOVE WITHIN WIDTH OF PROPOSED SEWER TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
 - OMIT SELECT GRANULAR CRADLE AND GRANULAR BACKFILL TO ONE (1) FOOT OVER THE TOP OF THE WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT OVER LENGTH "L".
 - USE A CASING PIPE FOR PROPOSED WATER MAIN AND SEAL ENDS OF CASING. SEE UW-14 FOR CASING DETAILS.
 - POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND WATER MAIN.
 - PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT OF WATER MAIN TRENCH.

UG-04a



- NOTES
- OMIT SELECT GRANULAR CRADLE AND GRANULAR BACKFILL TO ONE (1) FOOT OVER THE TOP OF PROPOSED WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT OVER LENGTH "L".
 - IF THE SELECT GRANULAR BACKFILL EXISTS; REMOVE WITHIN WIDTH OF PROPOSED SEWER TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
 - PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.
 - USE A CASING PIPE LENGTH "L" FOR PROPOSED WATER MAIN AND SEAL ENDS OF CASING. SEE UW-14 FOR CASING DETAILS.

ADDITIONAL NOTES
*THE REQUIREMENTS ON THIS DETAIL ARE TAKEN FROM THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (SEE PAGES 160-173)
CLASS IV MATERIALS SHALL BE COMPACTED TO 95% OF STANDARDS PROCTOR DENSITY.
OD = OUTSIDE DIAMETER

Revised:

- 06/12/2015
- 8/30/2021 KL - SEWER AND WATER 2014 UPDATE
-
-

Drawing Name

WATER AND SEWER SEPARATION REQUIREMENTS

Drawing Number

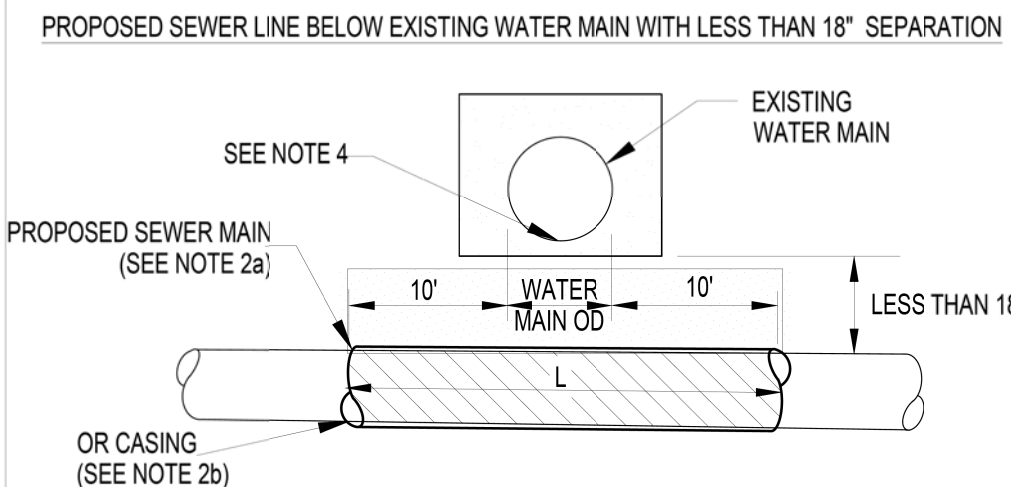
UG-04b

Date: 04/15/2007

Drawn: EM
Checked: AW

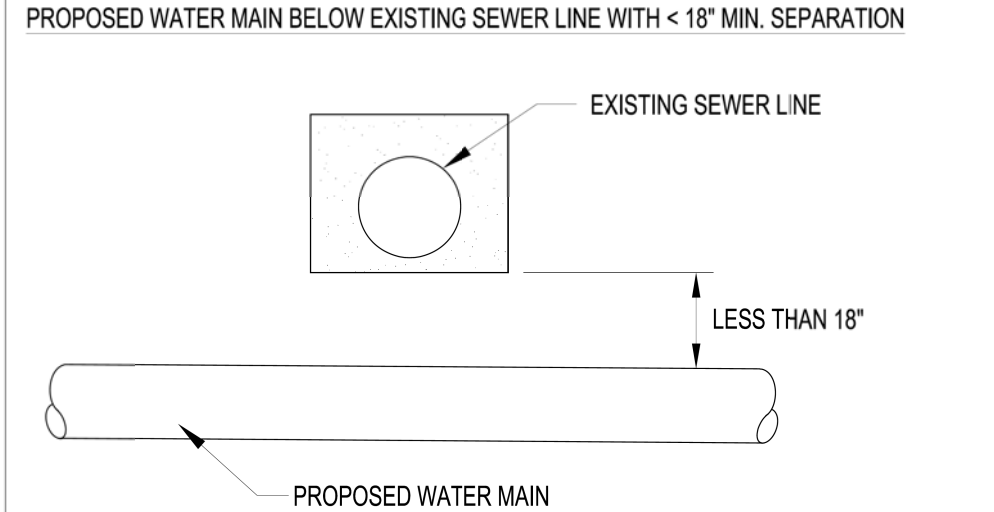
City of
Crystal Lake
Illinois

L:\ENGINEERING AND BUILDING\ENGINEERING DETAILS AND STANDARDS



- NOTES
- OMIT SELECT GRANULAR CRADLE AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF PROPOSED SEWER LINE AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT OVER LENGTH "L".
 - 2a. CONSTRUCT "L" FEET OF PROPOSED SEWER OF WATER MAIN MATERIAL AND PRESSURE TEST, OR
 - 2b. CONSTRUCT "L" FEET OF CASING FOR PROPOSED SEWER AND SEAL ENDS OF CASING. SEE UW-14 FOR CASING DETAILS OR
 - POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND WATER MAIN.
 - PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH.

UG-04b



ADDITIONAL NOTES:
*THE REQUIREMENTS ON THIS DETAIL ARE TAKEN FROM THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (SEE PAGES 160-173)

Revised:

- 06/12/2015
- 8/18/2023 JRG - SEWER AND WATER 2014 UPDATE
-
-

Drawing Name

WATER AND SEWER SEPARATION REQUIREMENTS

Drawing Number

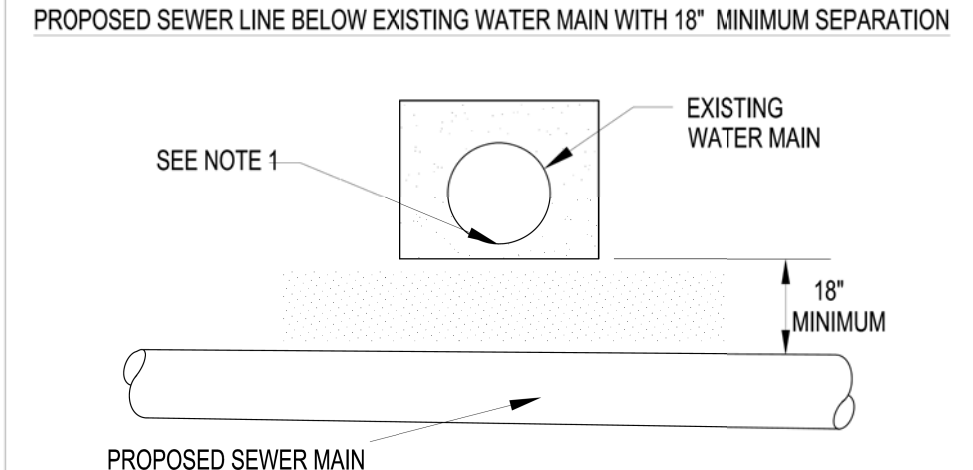
UG-04c

Date: 04/15/2007

Drawn: EM
Checked: AW

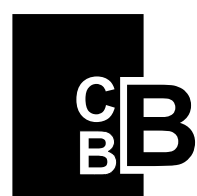
City of
Crystal Lake
Illinois

L:\ENGINEERING AND BUILDING\ENGINEERING DETAILS AND STANDARDS



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

UG-04b



CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

					DSGN.	JAL	DT0
					DWN.	MAK	
					CHKD.	JGS	WJS
					SCALE:		
					PLOT DATE:	10/6/2025	
					CAD USER:	mkoance	
					MODEL:	Default	
NO.	DATE	NATURE OF REVISION			CHKD.		
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek Daylight\Civil\DET_080364.00055_01.dgn						

TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
CONSTRUCTION DETAILS**

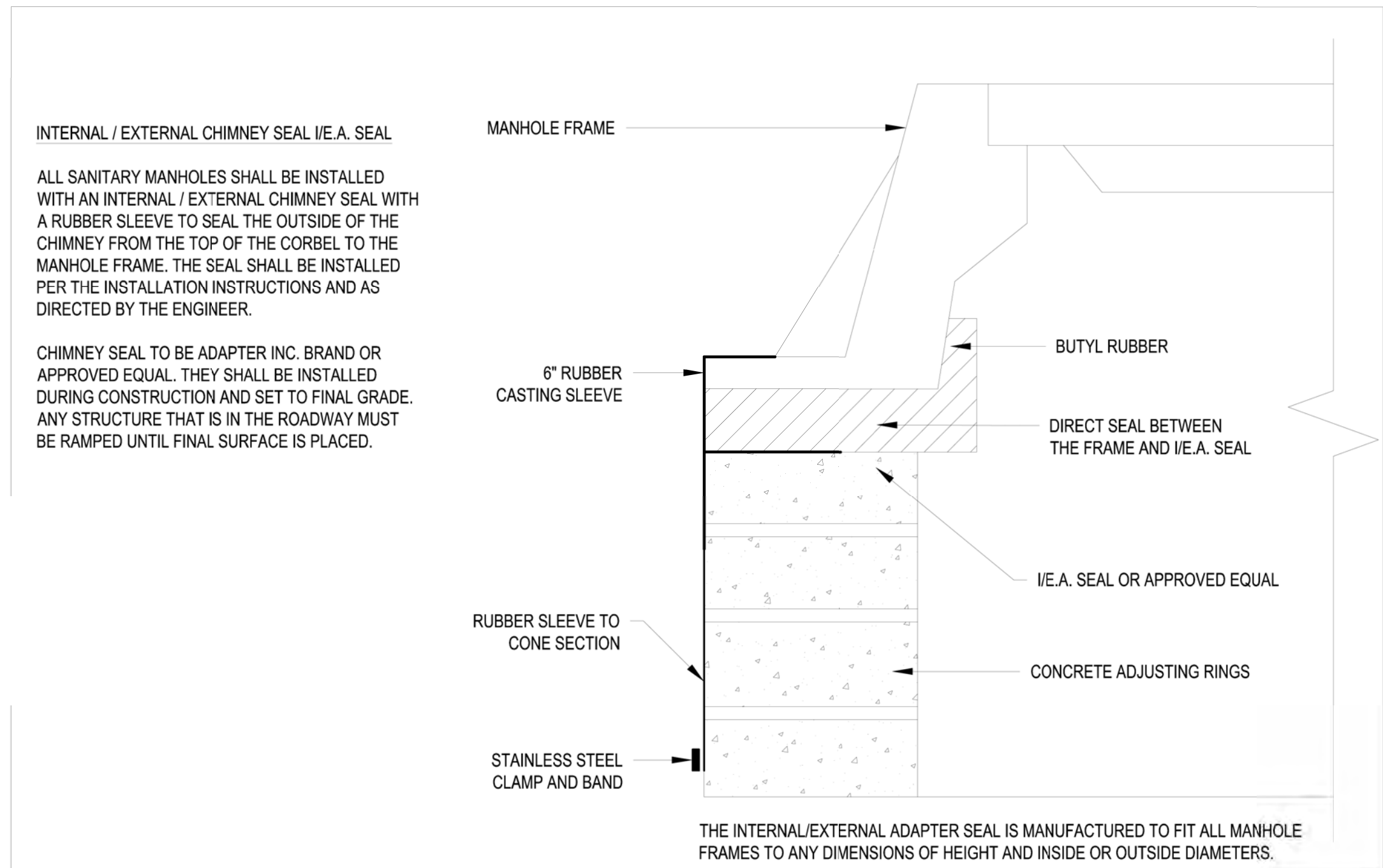
PROJ. NO. 08-0364.55B

DATE: 10/6/2025

SHEET 68 OF 93

DRAWING NO.

68



Revised:

1. 06/12/2015
- 2.
- 3.
- 4.

Drawing Name

INTERNAL / EXTERNAL CHIMNEY SEAL

Drawing Number

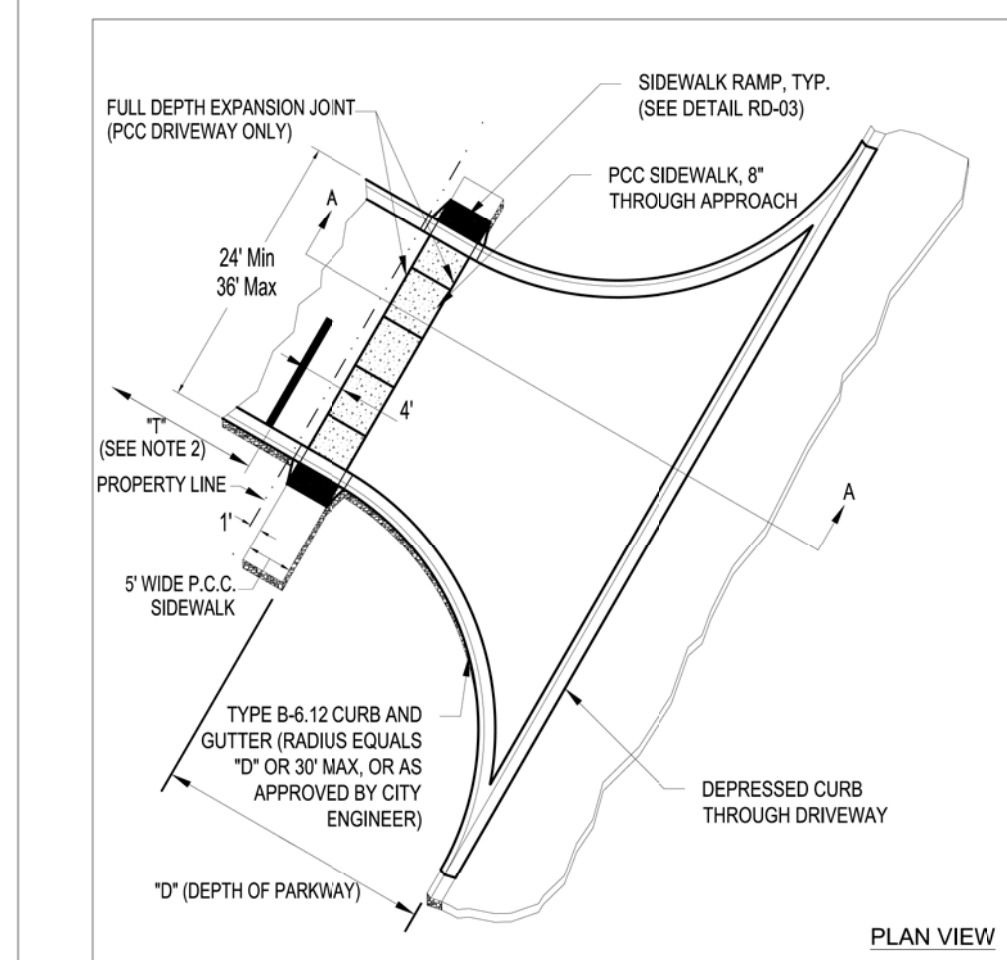
US-06

Date: 05/29/2015

Drawn JH
Checked VR



L:\ENGINEERING AND BUILDING\ENGINEERING DETAILS AND STANDARDS\



NOTES:

1. MAX. CONSTRUCTED APPROACH GRADE = 8%. APPROACH SHALL BE DESIGNED AT 6% UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
2. FOR THICKNESS OF PAVEMENT "T", VERTICAL THICKNESS OF THE GUTTER FLAG SHALL BE A MINIMUM OF 9 INCHES. FOR HMA BASE COURSE PAVEMENT SECTIONS THE GUTTER FLAG SHALL BE SAME THICKNESS AS PAVEMENT STRUCTURE.
3. TRANSITION FROM FULL CURB TO DEPRESSED CURB IN 2 LINEAL FEET, WHEN APPLICABLE.

Revised:

1. 06/12/2015
2. 02/25/2020
3. 08/18/2023 JRG - Update curb radius and transitions details
- 4.

Drawing Name

DRIVEWAY: COMMERCIAL APPROACH

Drawing Number

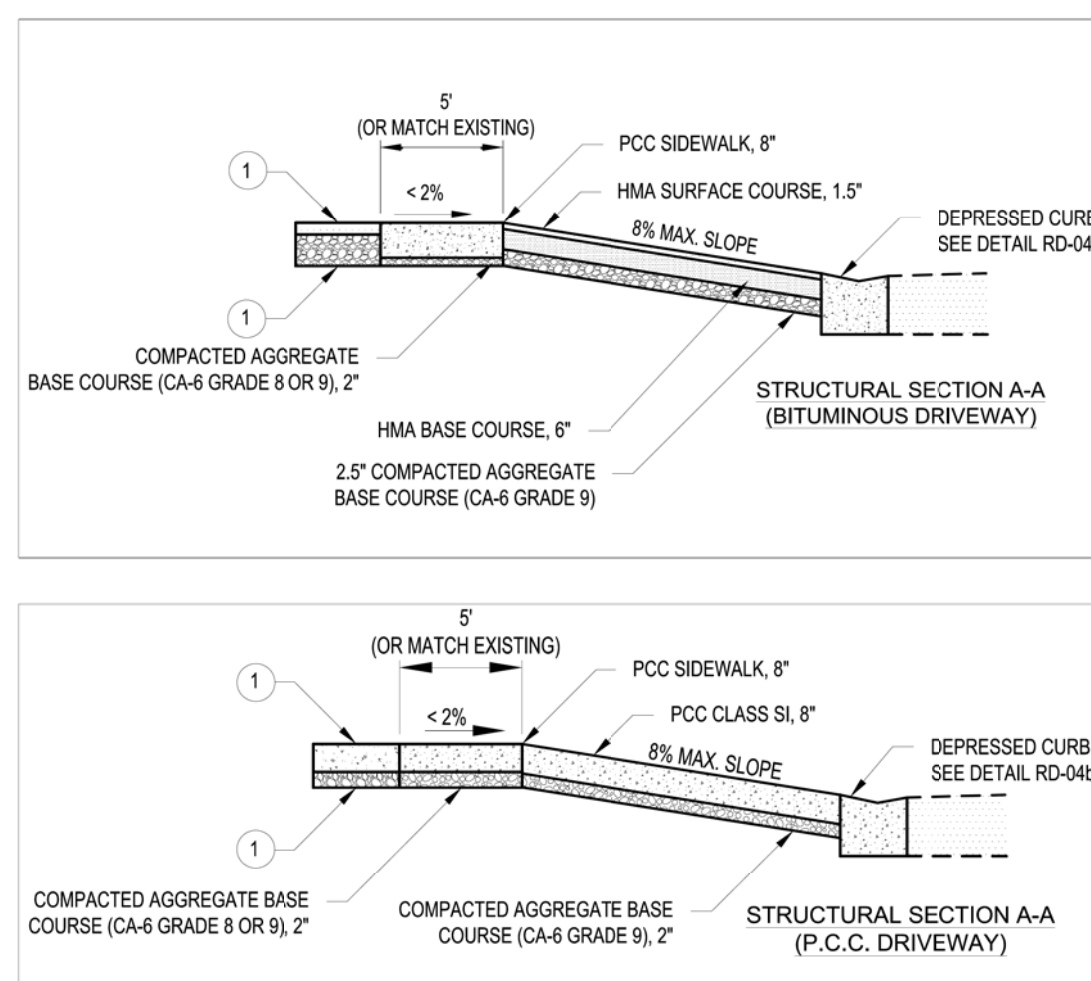
RD-01a

Date: 01/30/15

Drawn DD
Checked AW

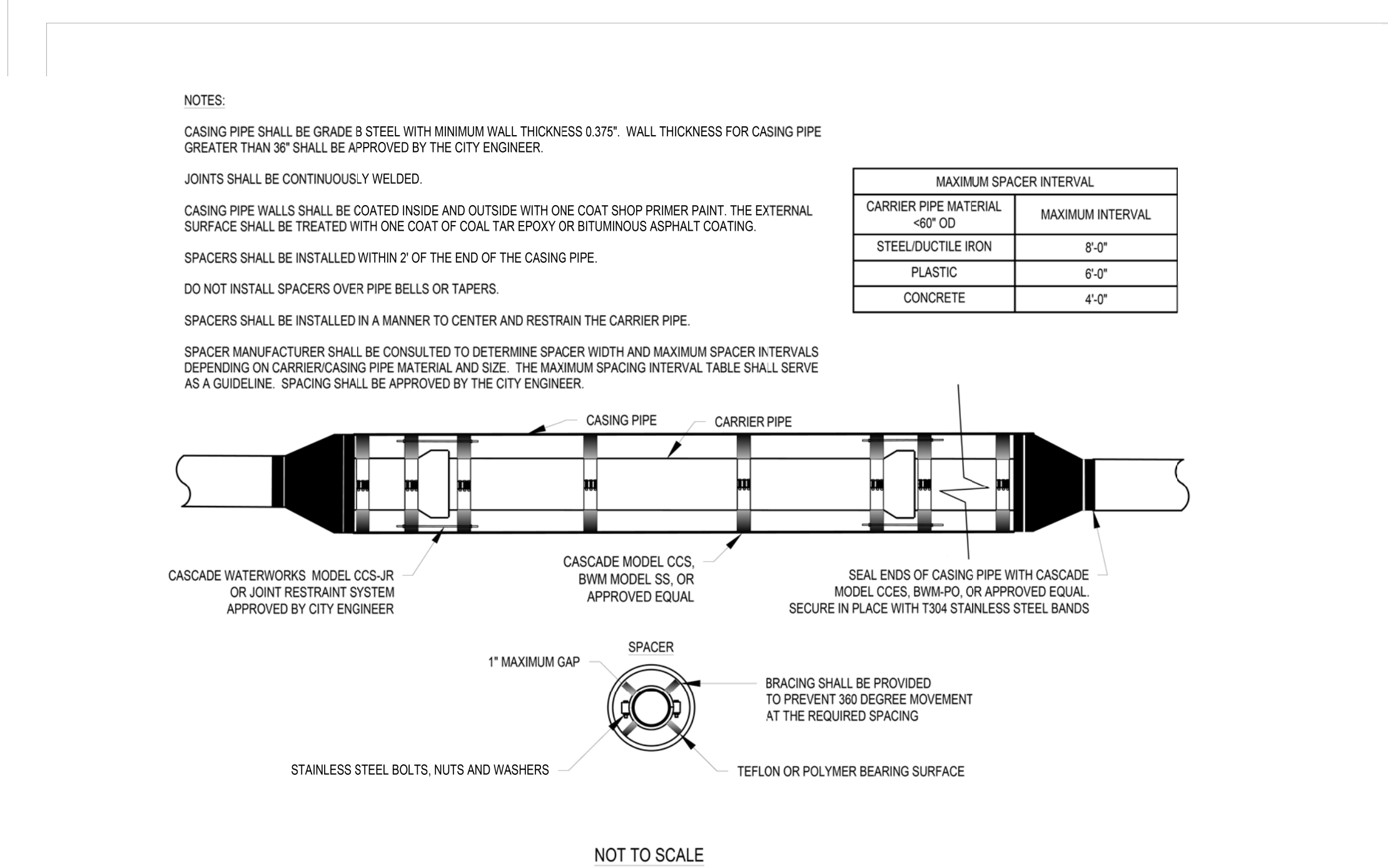


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LEGEND:

- 1 FOR PARKING LOT SEE UNIFIED DEVELOPMENT ORDINANCE, APPENDIX SECTION A-700.



Revised:

- 1.
- 2.
- 3.
- 4.

Drawing Name

CASING PIPE

Drawing Number

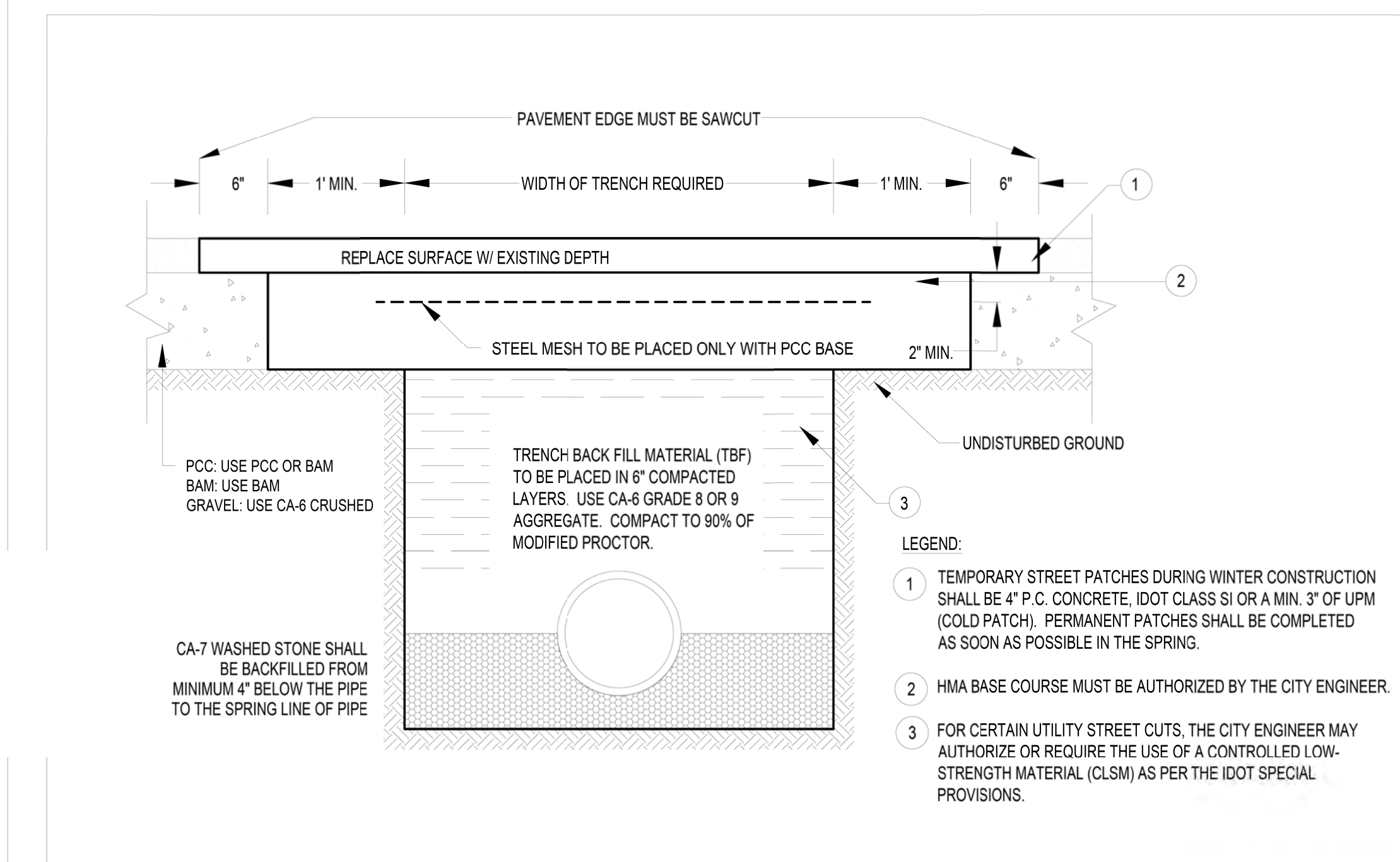
UW-14

Date: 01-25-2021

Drawn KL
Checked PW



L:\ENGINEERING AND BUILDING\ENGINEERING DETAILS AND STANDARDS\



Revised:

1. 06/12/2015
2. 9/8/2021 KL - CA-7 TO SPRING LINE OF PIPE
- 3.
- 4.

Drawing Name

PAVEMENT CUT AND REPLACEMENT

Drawing Number

RD-06

Date: 05/19/2015

Drawn JH
Checked AW



L:\ENGINEERING AND BUILDING\ENGINEERING DETAILS AND STANDARDS\



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CLIENT:



CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

					DSGN.	JAL	DT0
					DWN.	MAK	
					CHKD.	JGS	WJS
					SCALE:		
					PLOT DATE:	10/6/2025	
					CAD USER:	mkoance	
					MODEL:	Default	
NO.	DATE	NATURE OF REVISION			CHKD.		
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek_Daylight\Civil\DET_080364.00055_01.dgn						

TITLE:

CRYSTAL CREEK DAYLIGHTING PROJECT CONSTRUCTION DETAILS

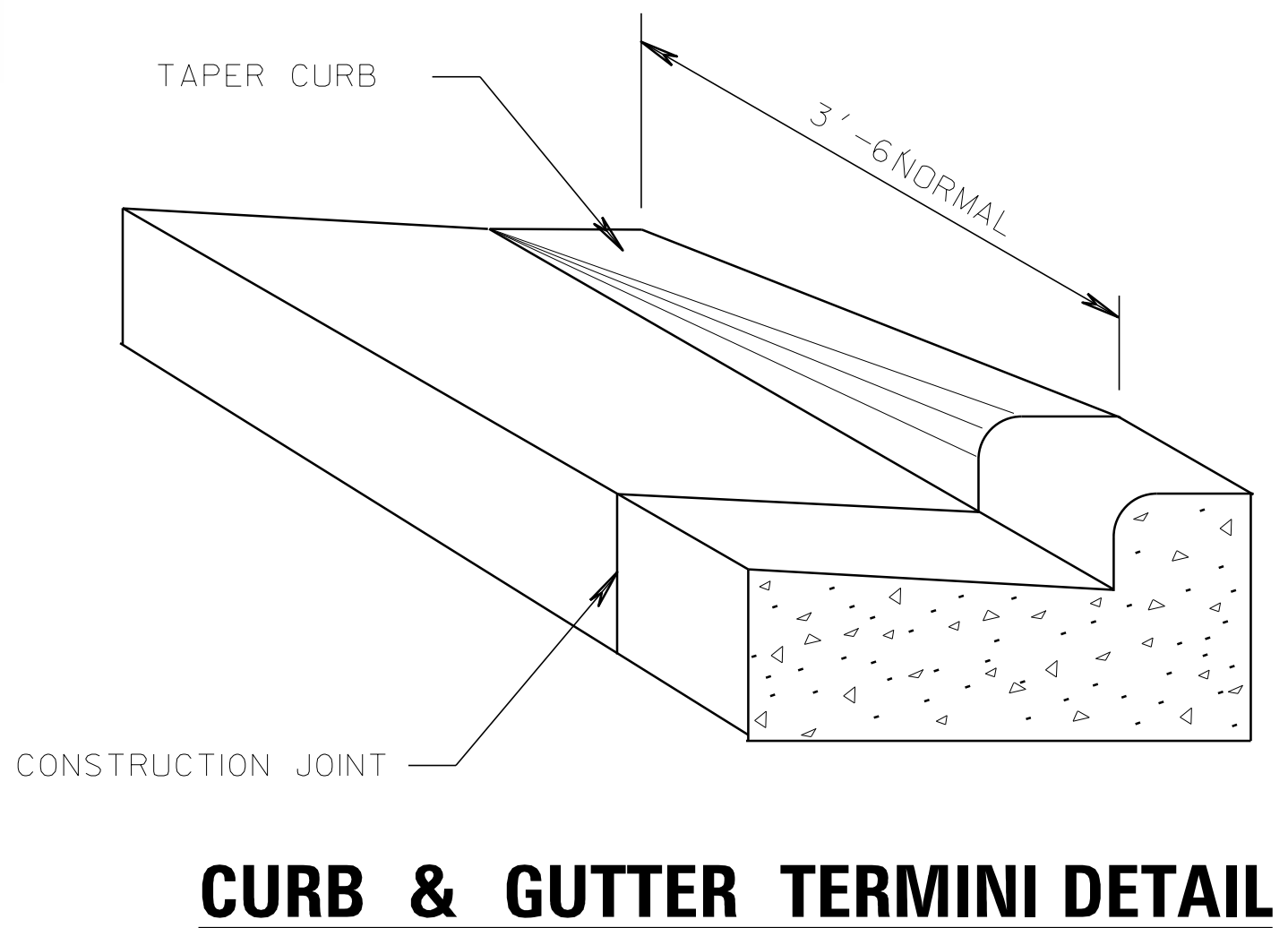
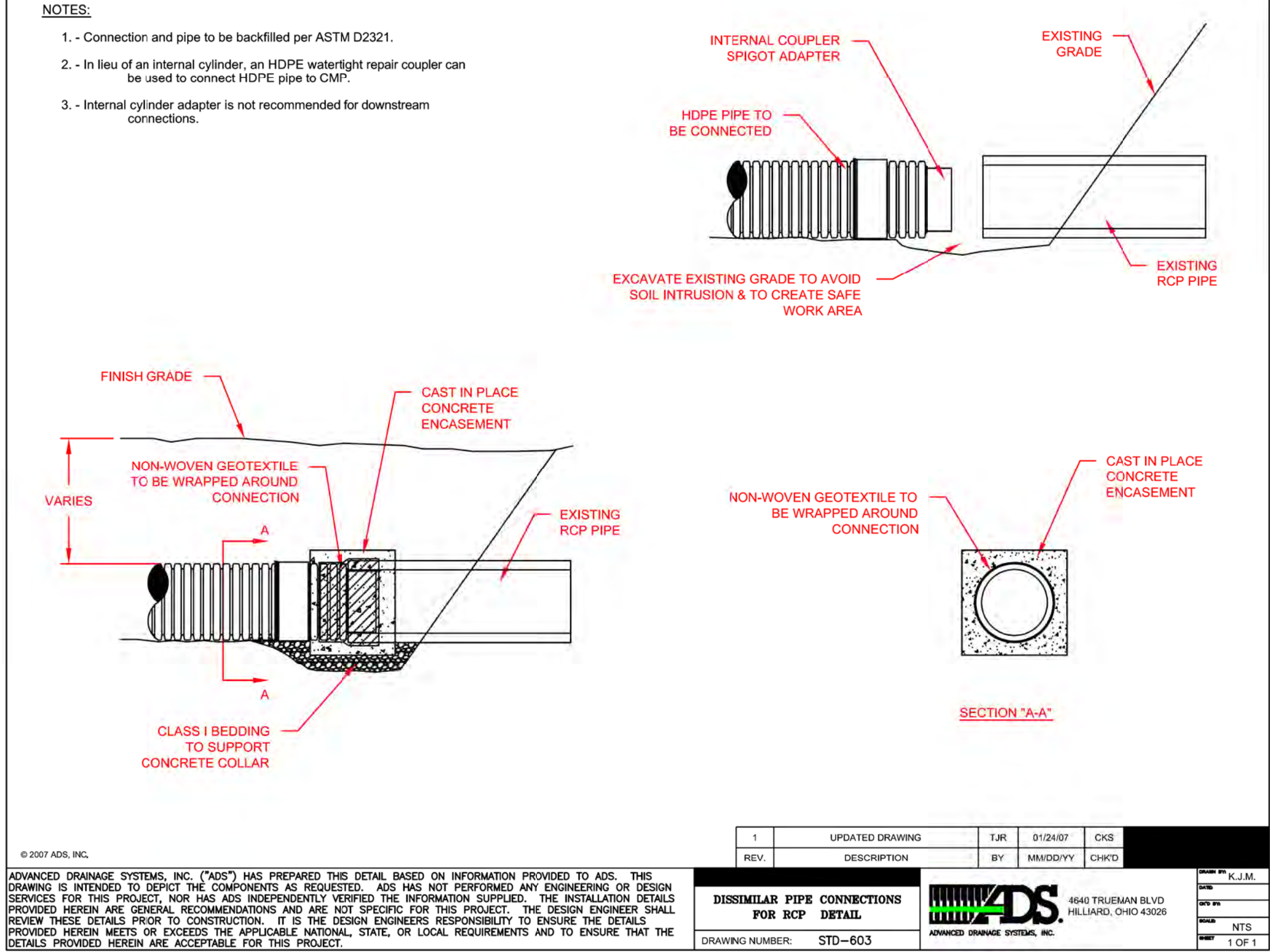
PROJ. NO. 08-0364.55B

DATE: 10/6/2025

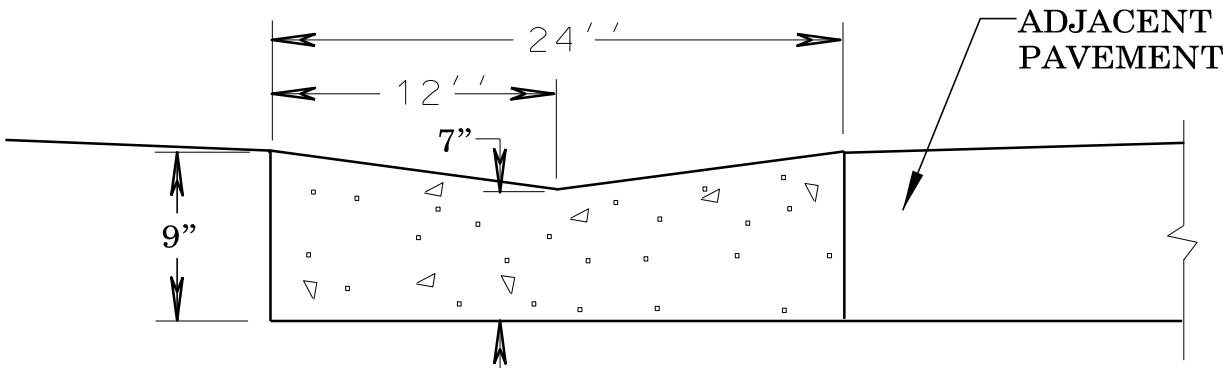
SHEET 70 OF

DRAWING NO.

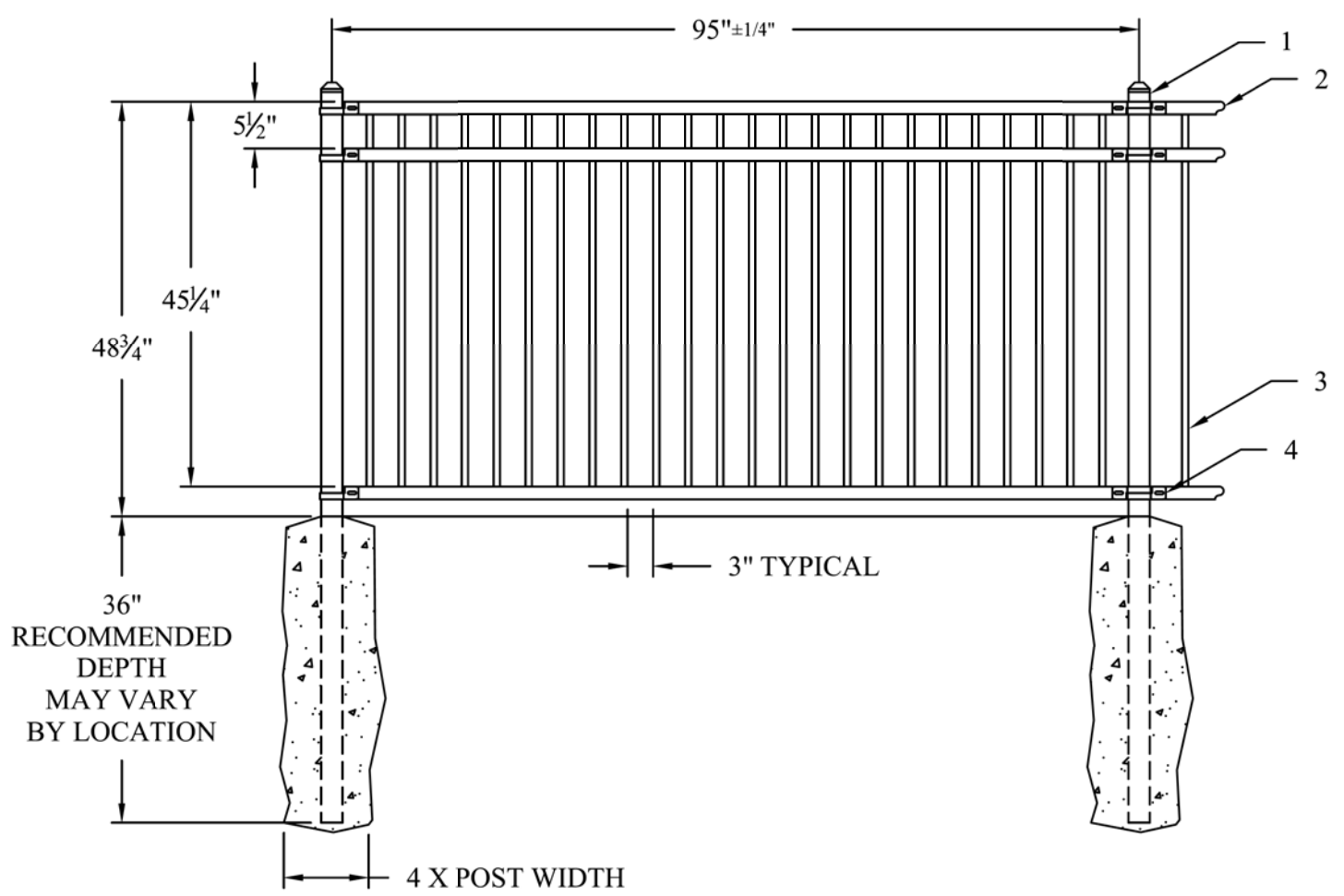
70



CURB & GUTTER TERMINI DETAIL



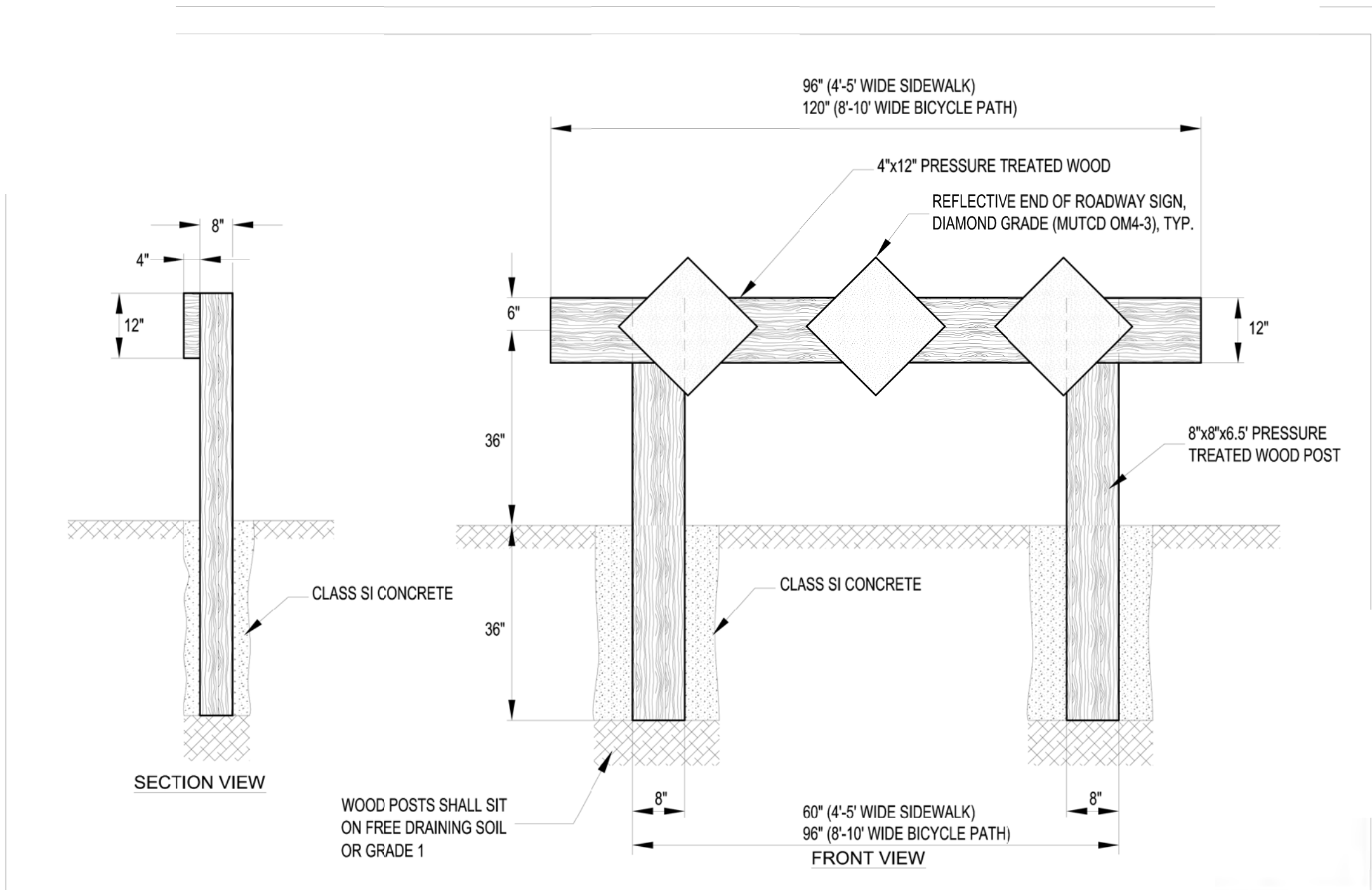
TYP. CONCRETE V-GUTTER 24" DETAIL



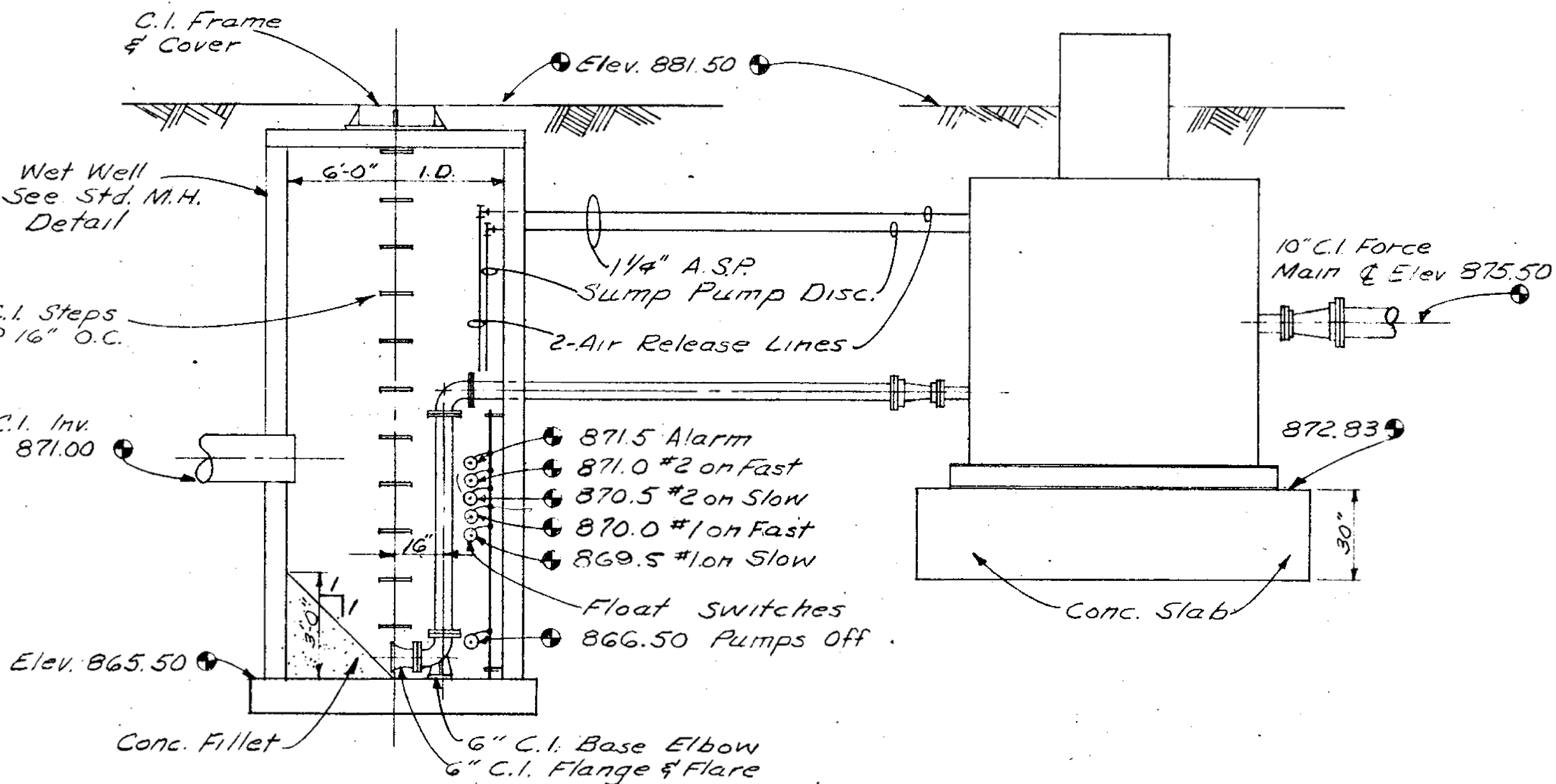
#	QTY.	DESCRIPTION
1	2	3/4" Sq. POST
2	3	1/2" x 1 1/2" RIBBED CHANNEL RAIL
3	24	3/4" Sq. PICKET
4	6	BRACKETS

PROPRIETARY INFORMATION This drawing is the property of AMERISTAR, Inc. and must not be duplicated or used for the making of drawings, prints or parts in the absence of written permission from AMERISTAR, Inc. In accepting this drawing, the recipient agrees to keep the information contained confidential.				AMERISTAR® 1535 N. Mingo Tulsa, OK 74114 1-888-333-3422 www.ameristarfence.com		
TITLE: MONTAGE PLUS MAJESTIC 3R FLB 3"GAP 4T 8" PANEL				DATE: 08/19/13	SCALE: DNS	SHEET: 1/1
REV.	BY	CHKD	DATE	DESCRIPTION		
1	NHB	CT	1-21-10	Added 3" to the width of the post		
2	NHB	CT	1-18-11	Post spacing from 59" to 60"		
				DRN BY: DLM	CHK BY:	REV: E
				DRAWING NO: 1RMX346F-3		

FENCE DETAIL



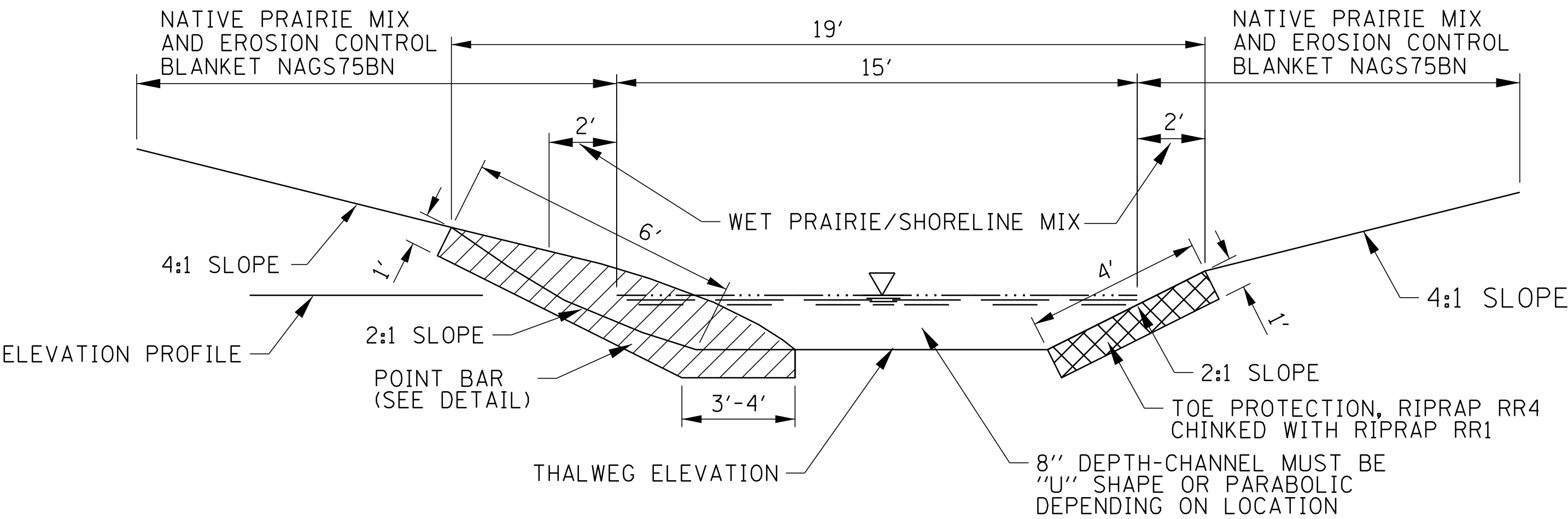
Revised:	Drawing Name	Drawing Number	
1. 06/12/2015	BARRICADE END OF SIDEWALK OR PATH	RD-08	
2.		Date: 05/19/2015	
3.		Drawn: JH	
4.		Checked: AW	



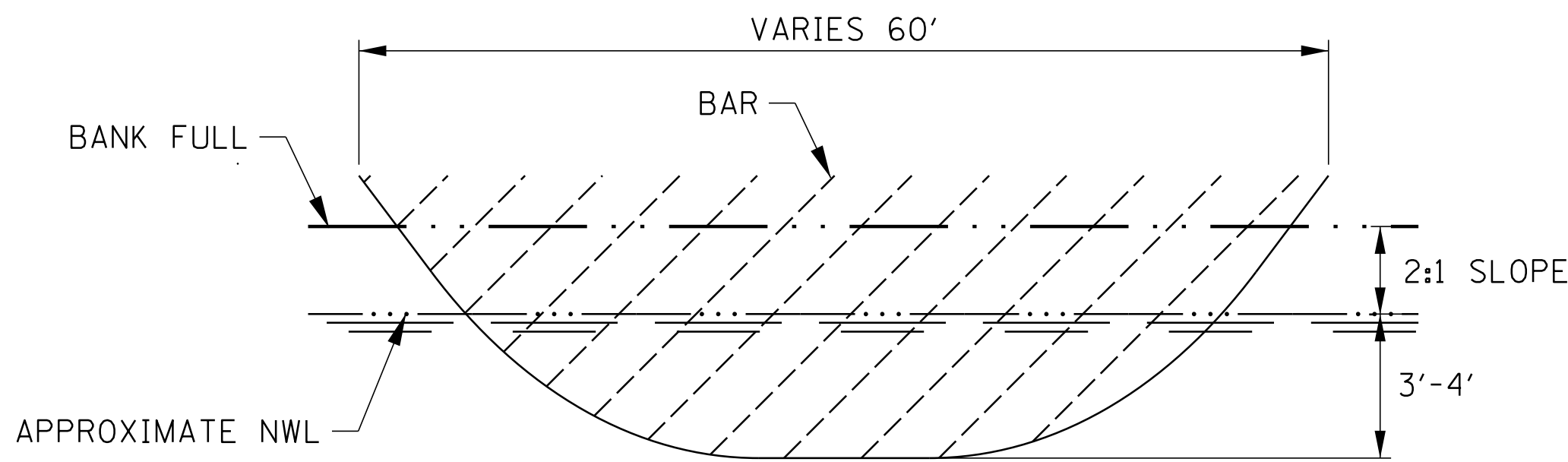
LIFT STATION REMOVAL DETAIL



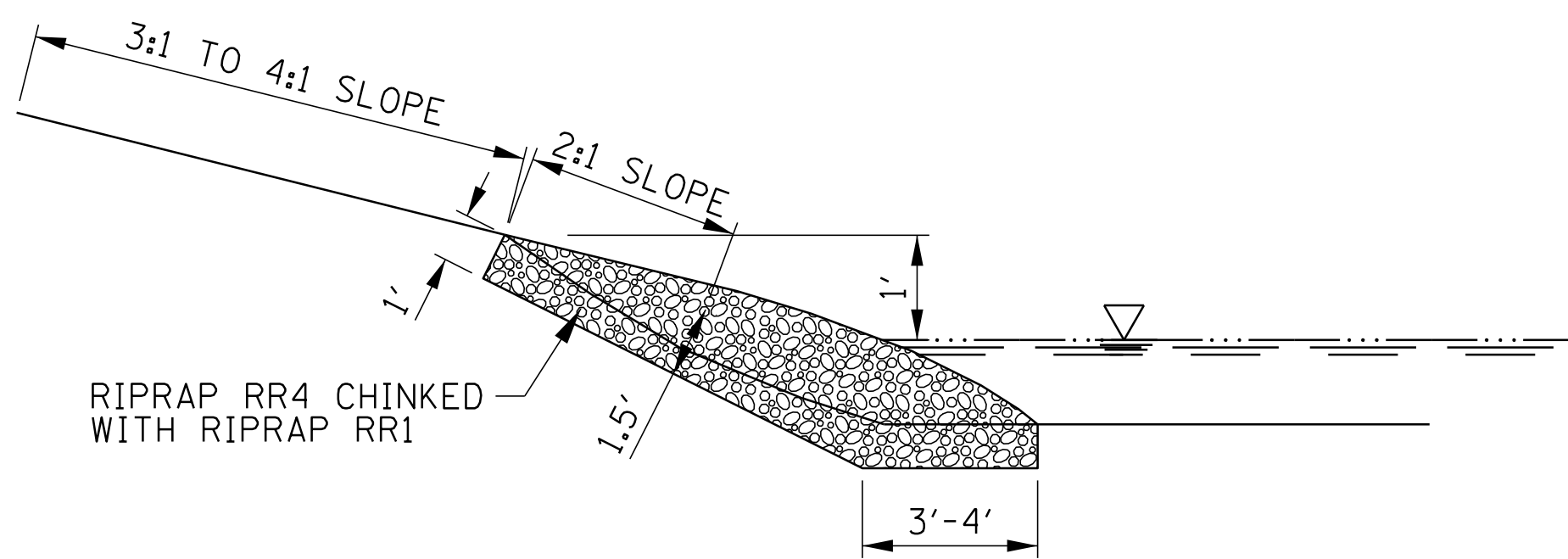
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DWN.	MAK	
CHKD.	JGS	WJS
SCALE:		
PLOT DATE:	10/6/2025	
CAD USER:	mkoonee	
MODEL:	Default	
NO.	DATE	NATURE OF REVISION
FILE NAME	N:\CRYSTALLAKE\080364_Reviews\080364.00055 - CrystalCreek Daylight\Civil\DET_080364.00055_01.dgn	



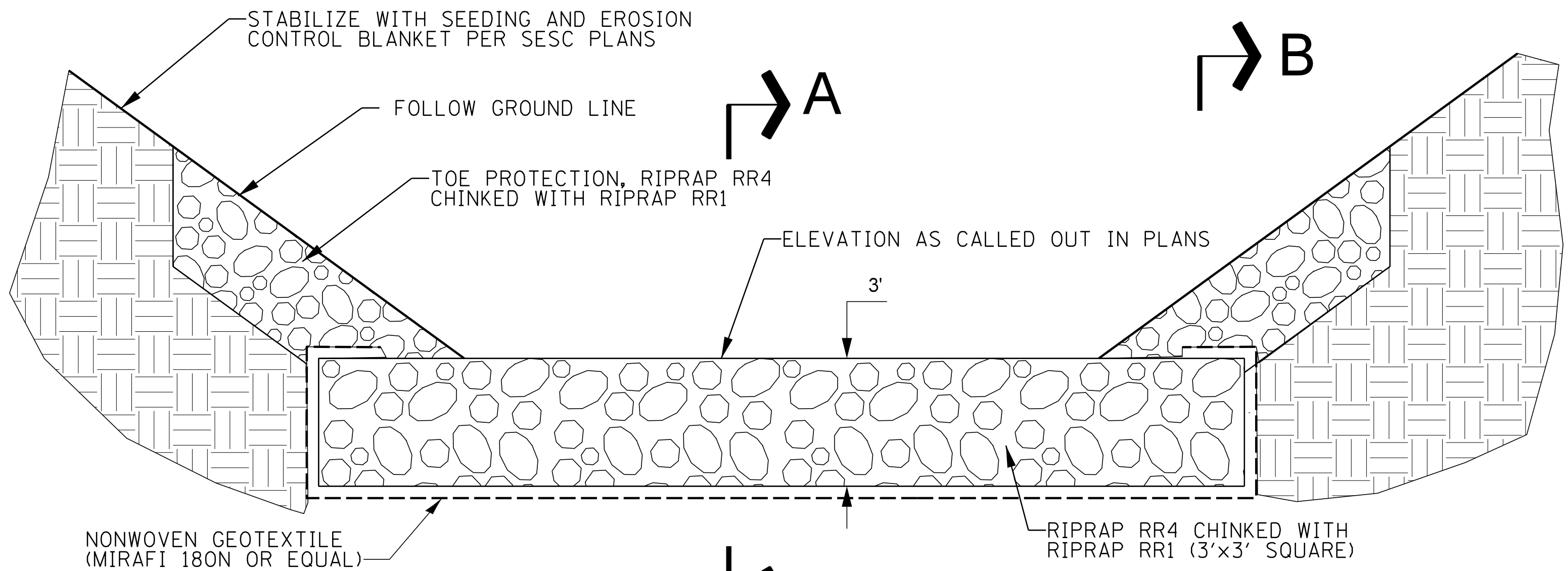
TYPICAL CREEK CROSS-SECTION



BAR-TYPICAL PLAN VIEW

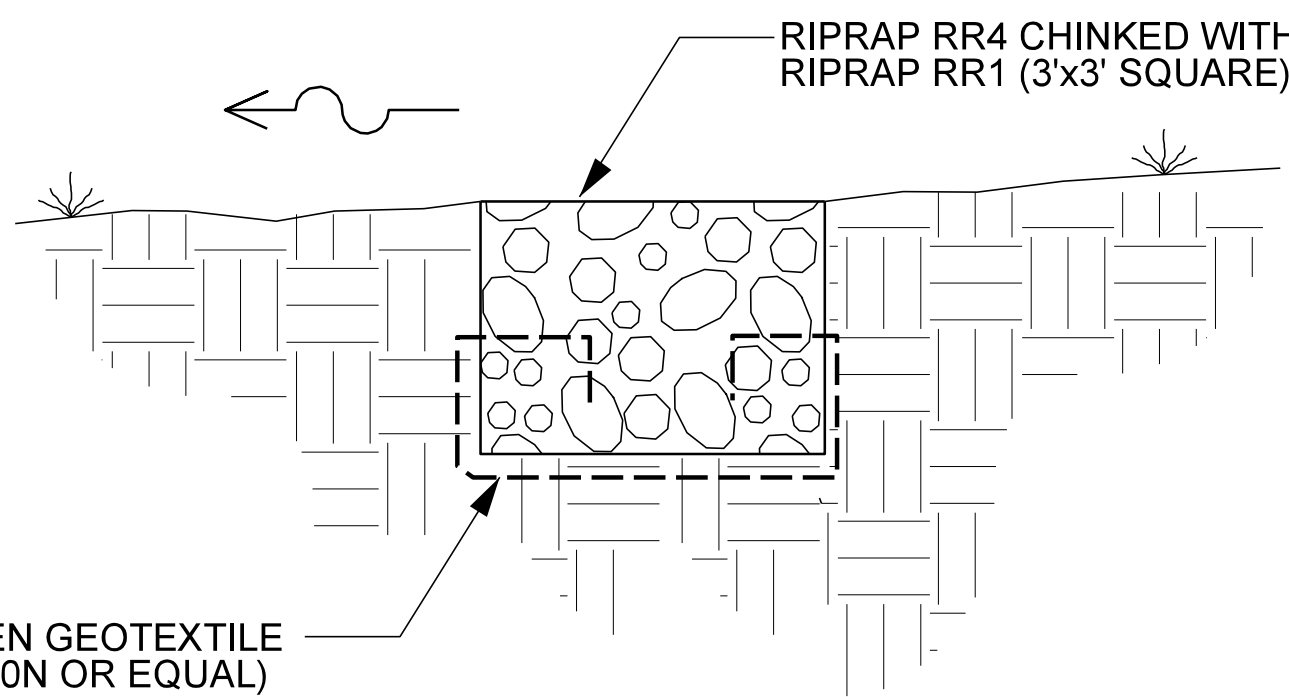


BAR-SIDE VIEW



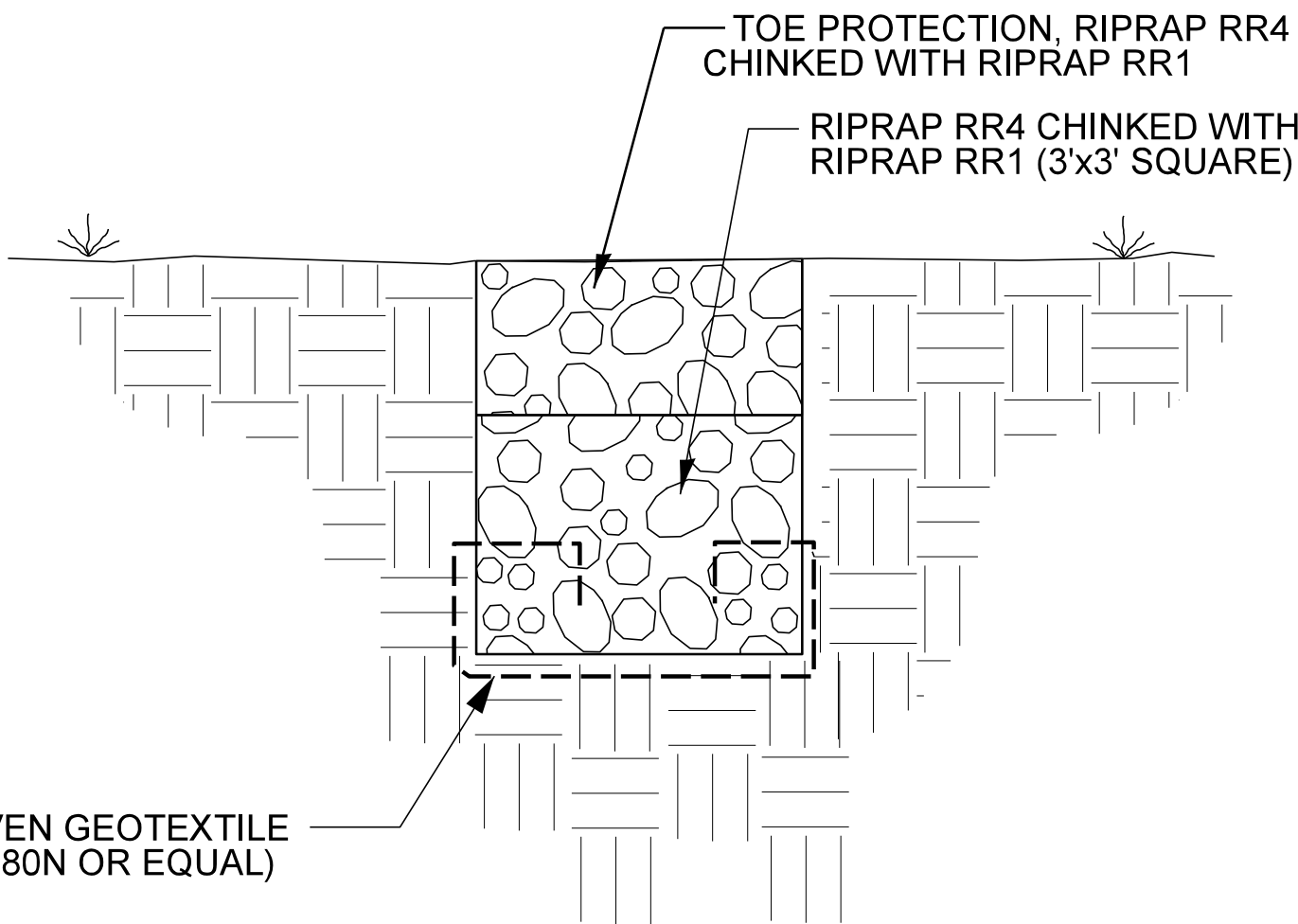
SILL DETAIL - SECTION

NTS



A-A: SILL DETAIL - PROFILE

NTS



B-B: SILL DETAIL - PROFILE

NTS



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CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL	Default
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TITLE:

**CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 CYRSTAL CREEK
CONSTRUCTION DETAILS**

PROJ. NO. 08-0364.55B

DATE: 10/6/2025

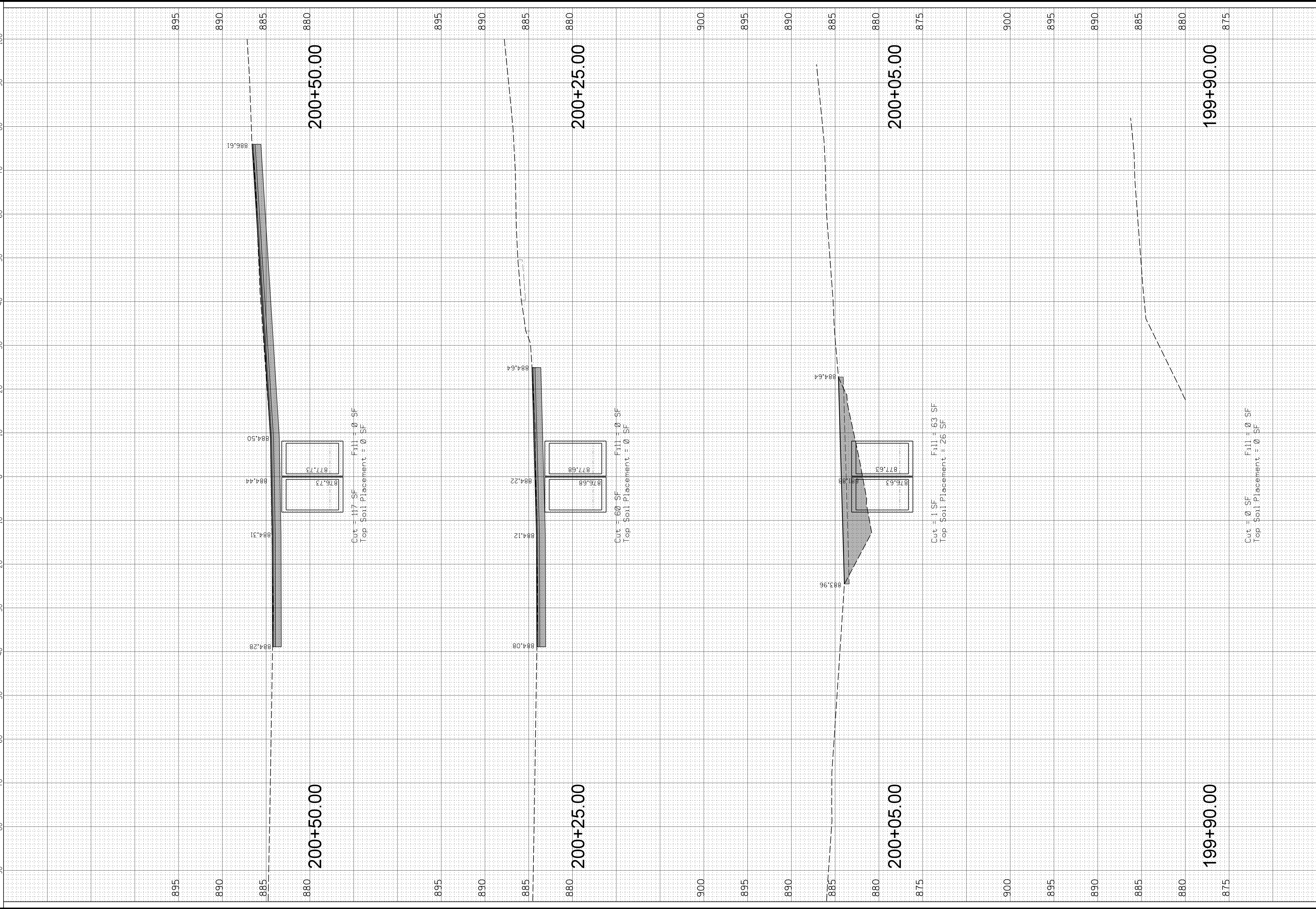
SHEET 72 OF 93

DRAWING NO.

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DATE	BY	CHK	DATE	BY	CHK	DATE	BY	CHK
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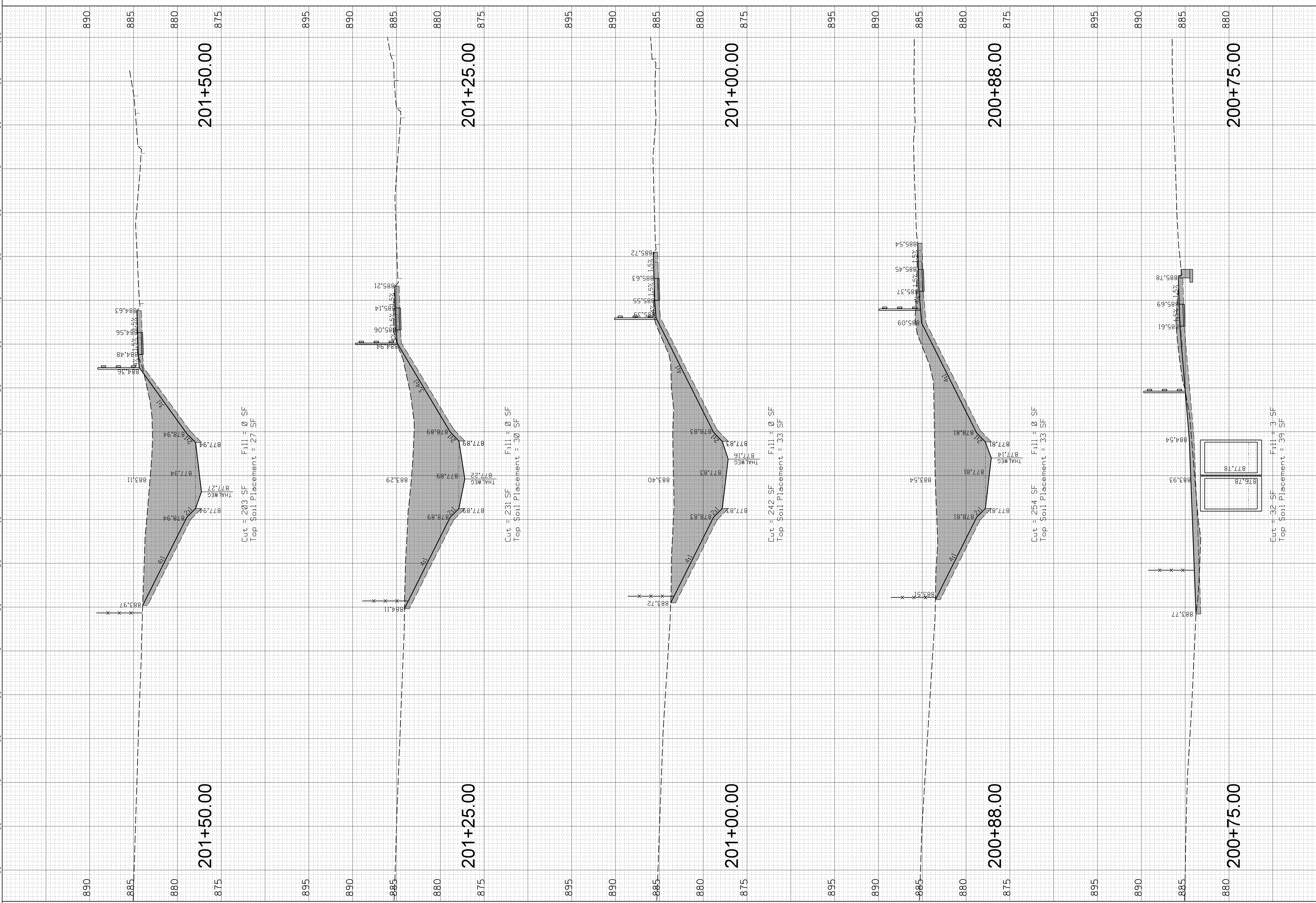
CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 CRYSTAL CREEK
STA. 199 + 90.00 - STA. 200 + 50.00

CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 CRYSTAL CREEK
STA. 199 + 90.00 - STA. 200 + 50.00

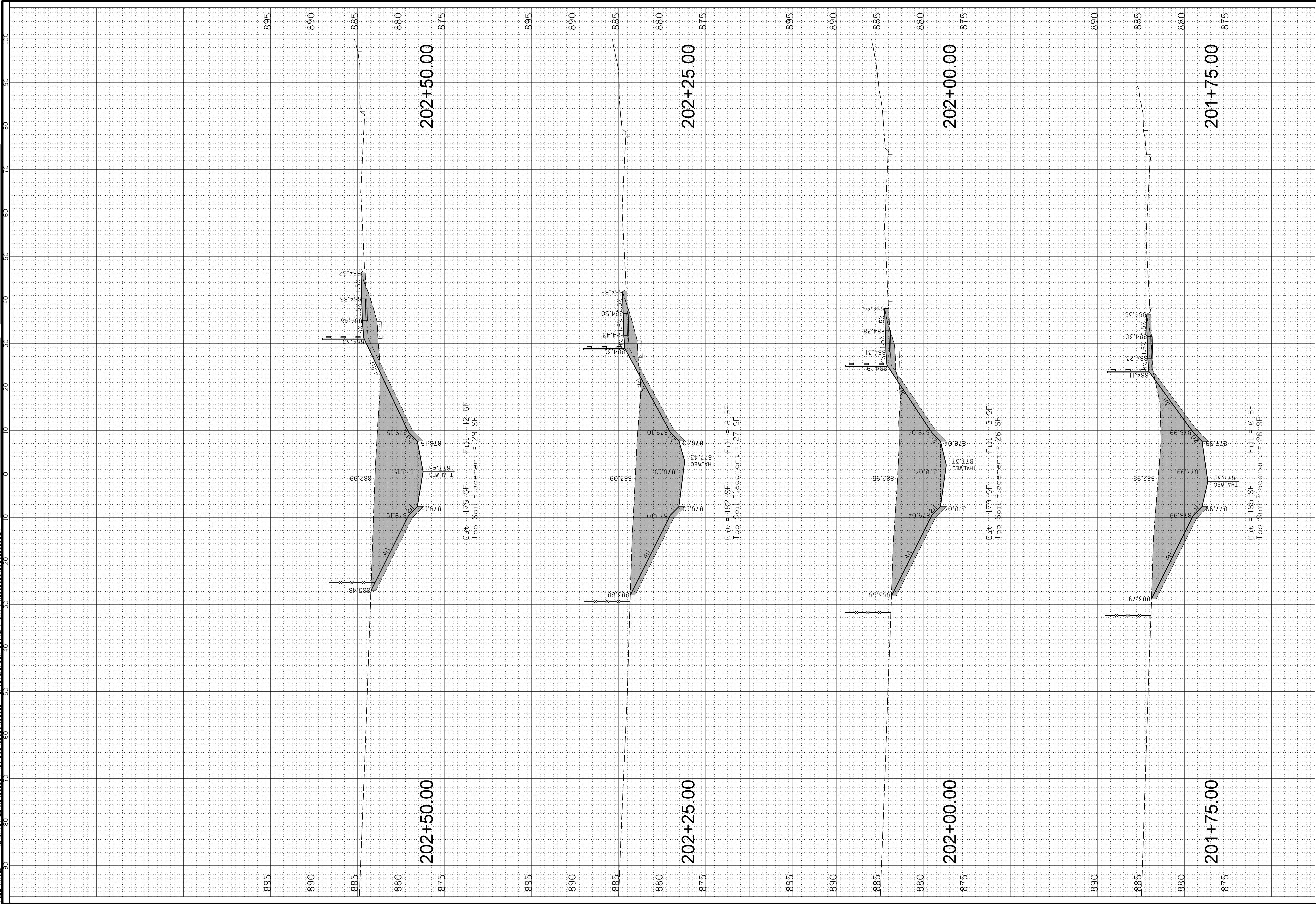
CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 CRYSTAL CREEK
STA. 199 + 90.00 - STA. 200 + 50.00

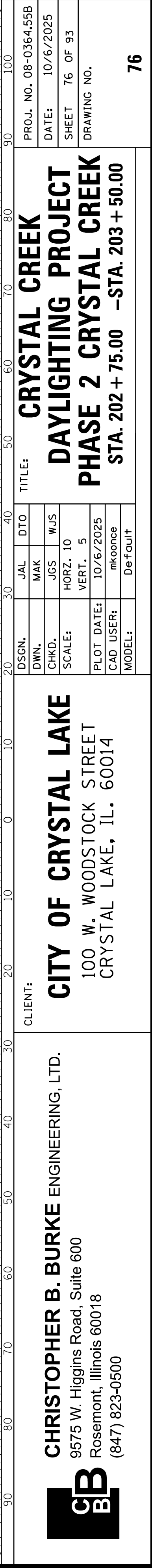
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CITY OF CRYSTAL LAKE				CITY OF CRYSTAL LAKE				CITY OF CRYSTAL LAKE			
DESIGNED BY	DATE	SCALE	PROJECT	DRAWN BY	DATE	SCALE	PROJECT	DESIGNED BY	DATE	SCALE	PROJECT
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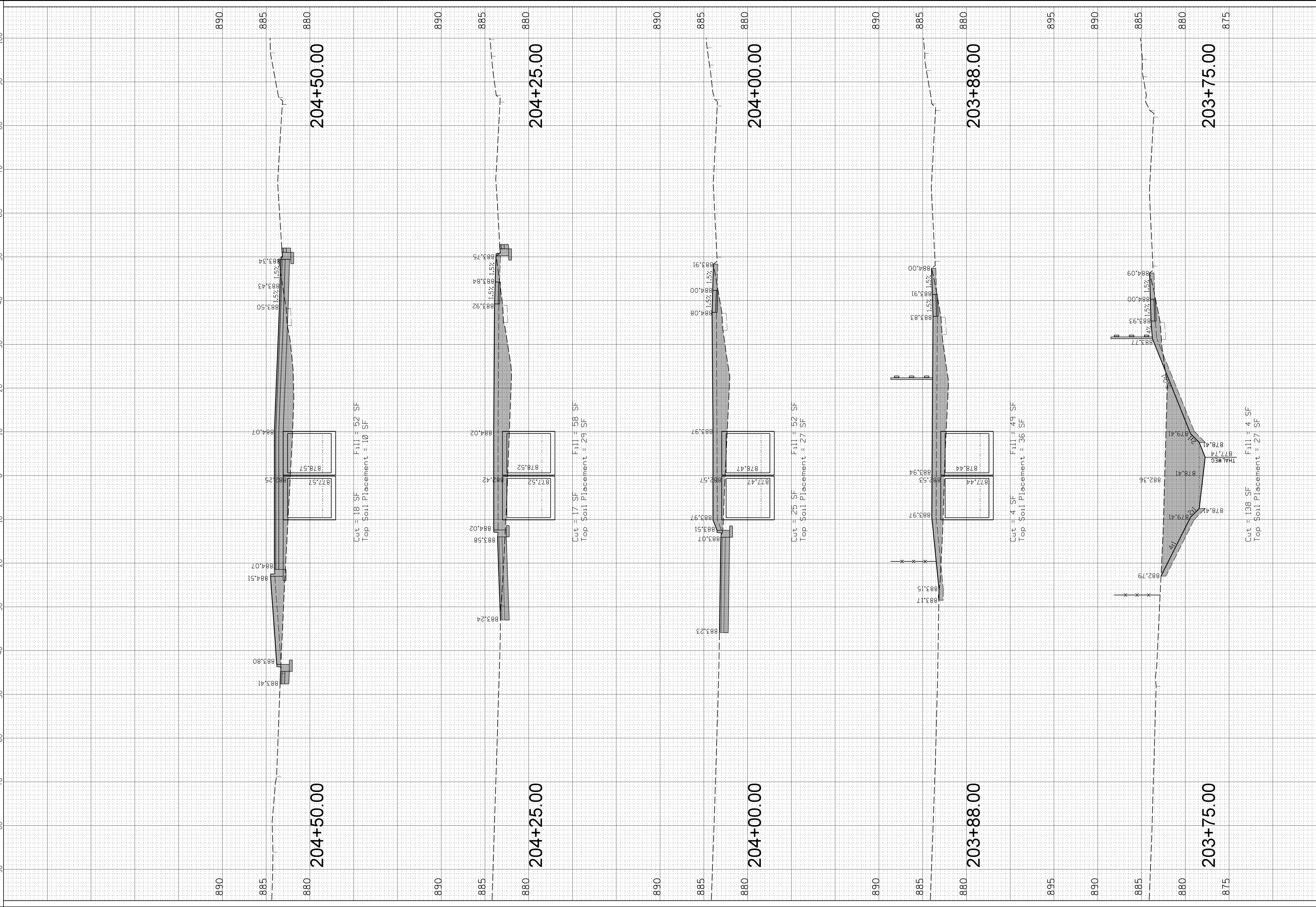
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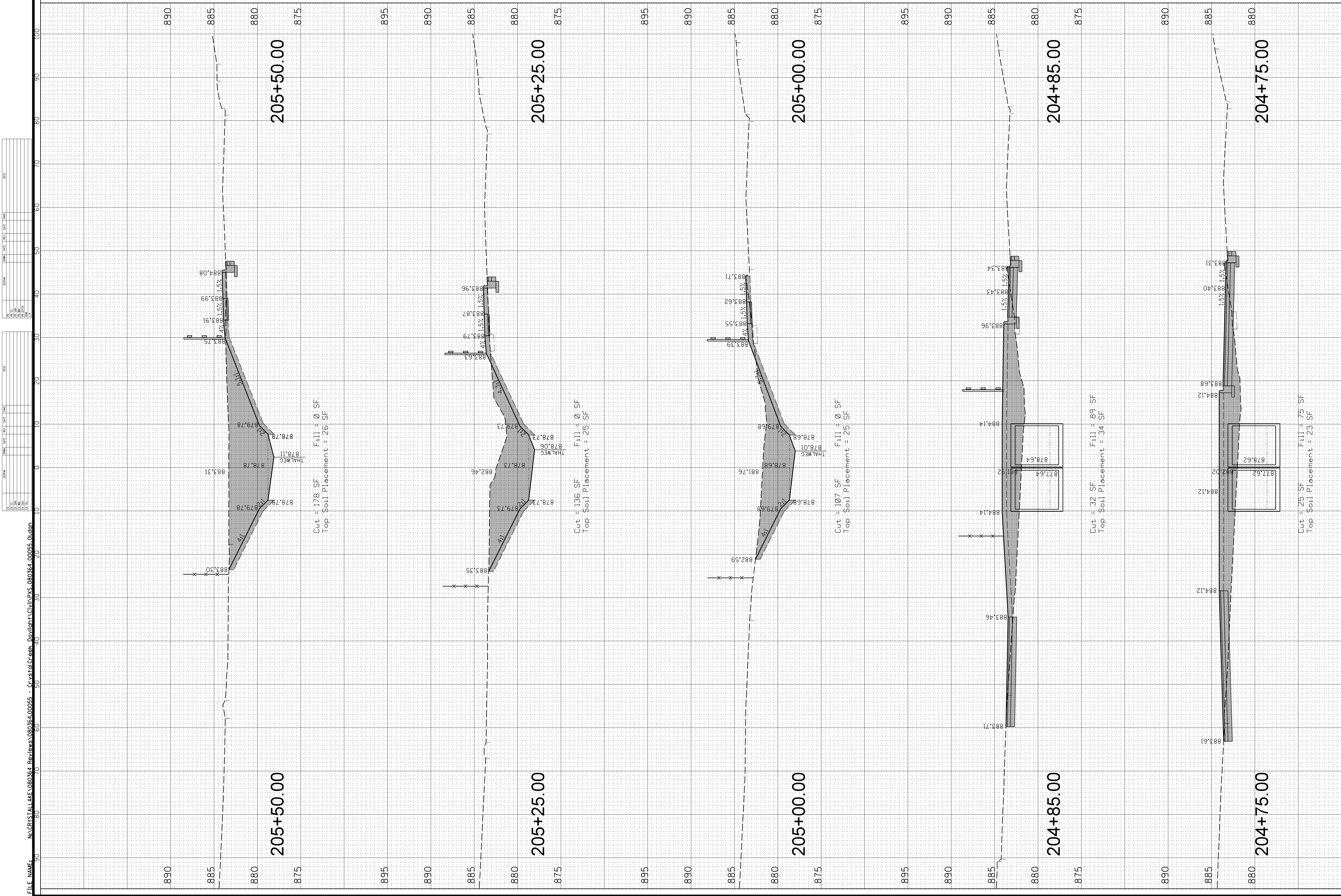
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DATE	BY	CHKD	DATE	BY	CHKD	DATE	BY	CHKD
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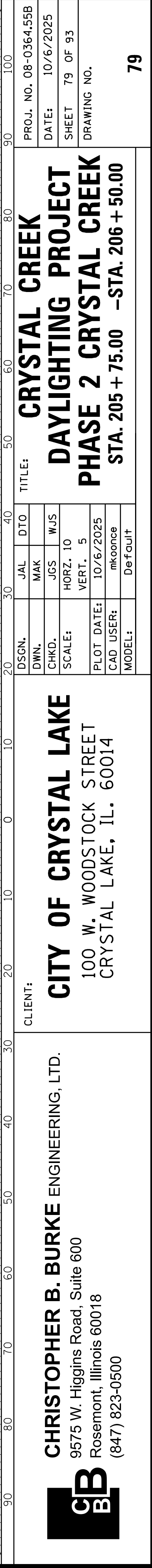
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10/6/2025	MM		10/6/2025	MM		10/6/2025	MM	
10/6/2025	MM		10/6/2025	MM		10/6/2025	MM	
10/6/2025	MM		10/6/2025	MM		10/6/2025	MM	



DATE	BY	CHK	DATE	BY	CHK	DATE	BY	CHK
10/6/2025	JOS		10/6/2025	JOS		10/6/2025	JOS	
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10/6/2025	JOS		10/6/2025	JOS		10/6/2025	JOS	
10/6/2025	JOS		10/6/2025	JOS		10/6/2025	JOS	



DATE	TIME	NAME	REMARKS	DATE	TIME	NAME	REMARKS
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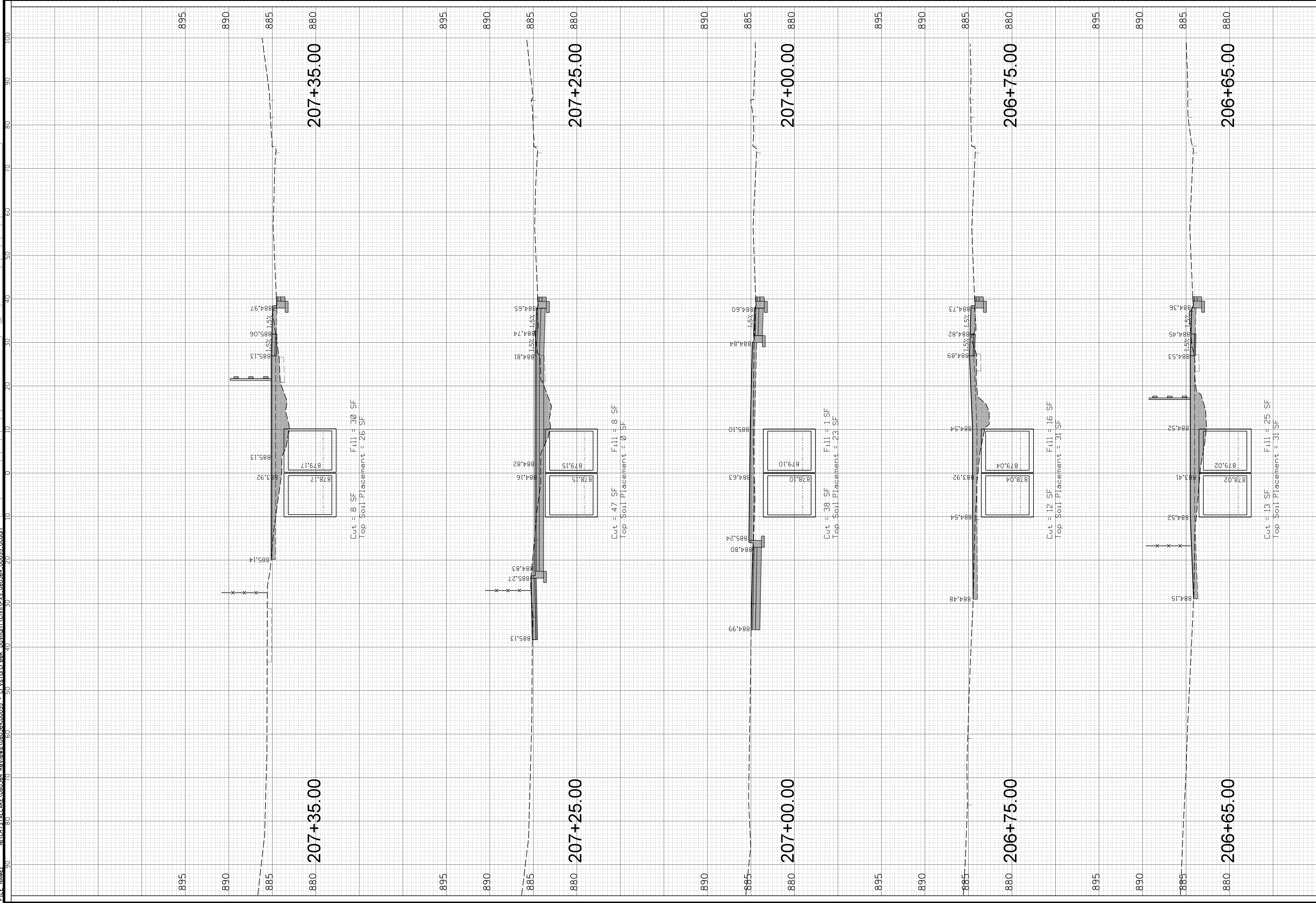
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

TITLE: **CRYSTAL CREEK**
DAYLIGHTING PROJECT
PHASE 2 CRYSTAL CREEK
 STA 205 + 75.00 — STA 206 + 50.00
 PROJ. NO. 08-0364-55B
 DATE: 10/6/2025
 SHEET 79 OF 93
 DRAWING NO.

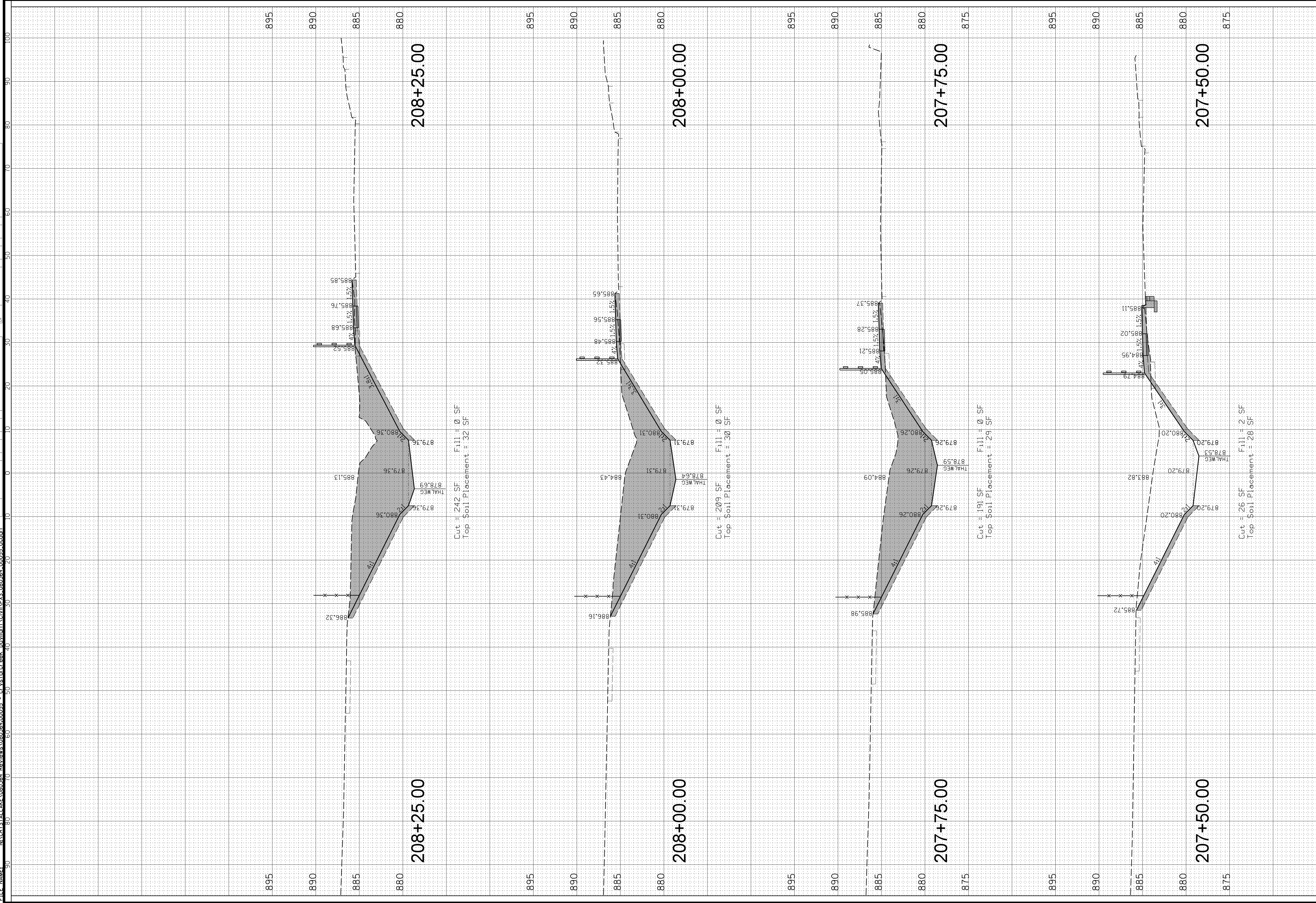
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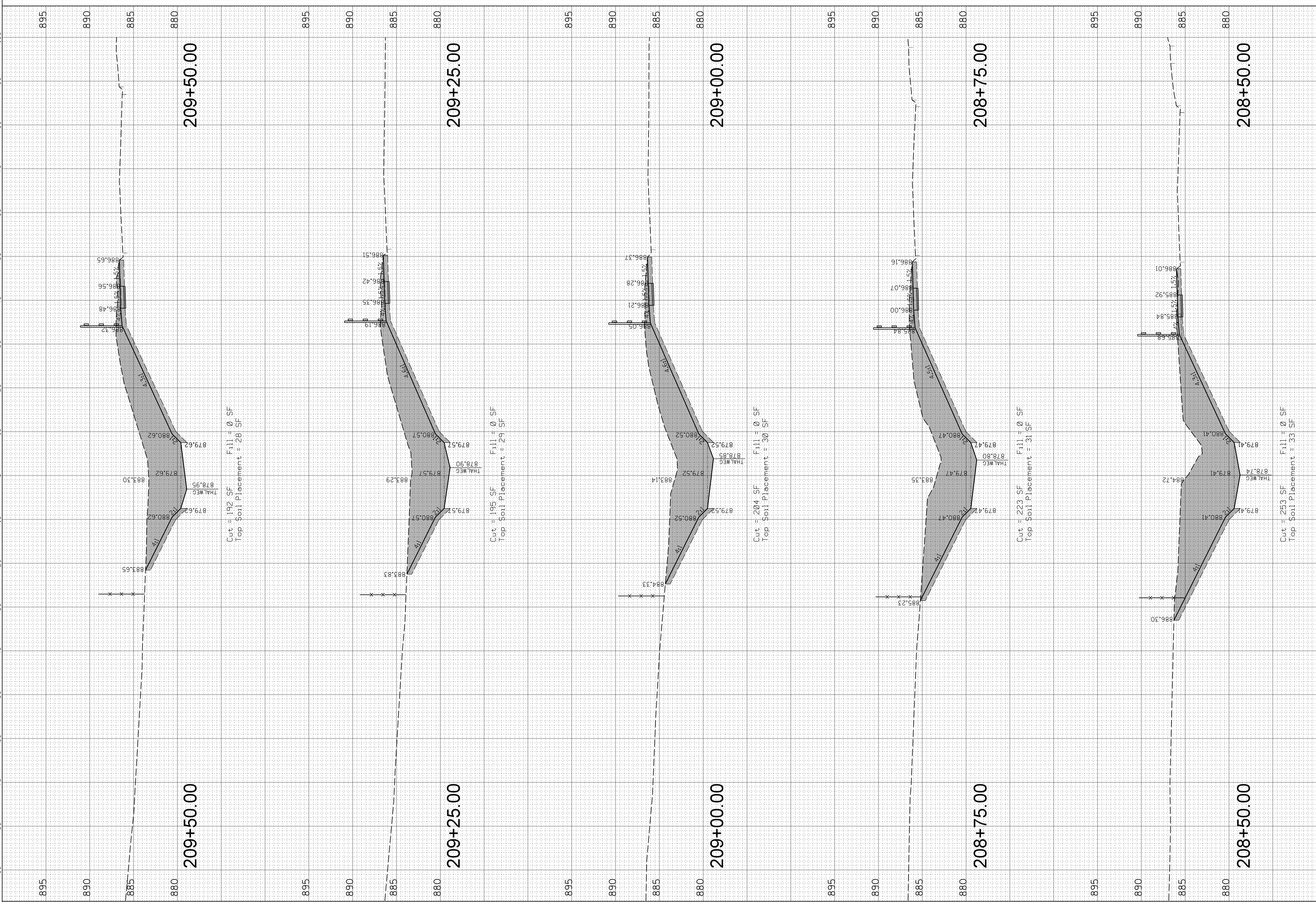
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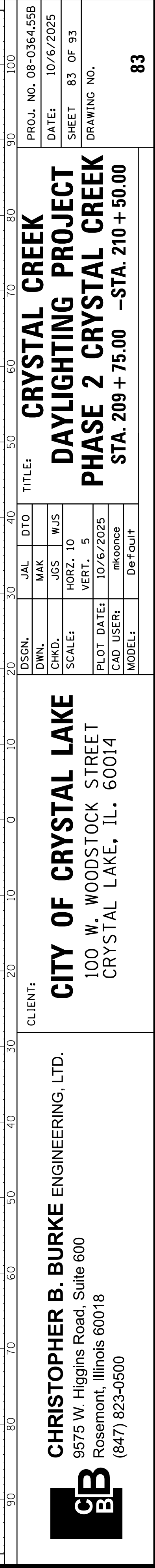
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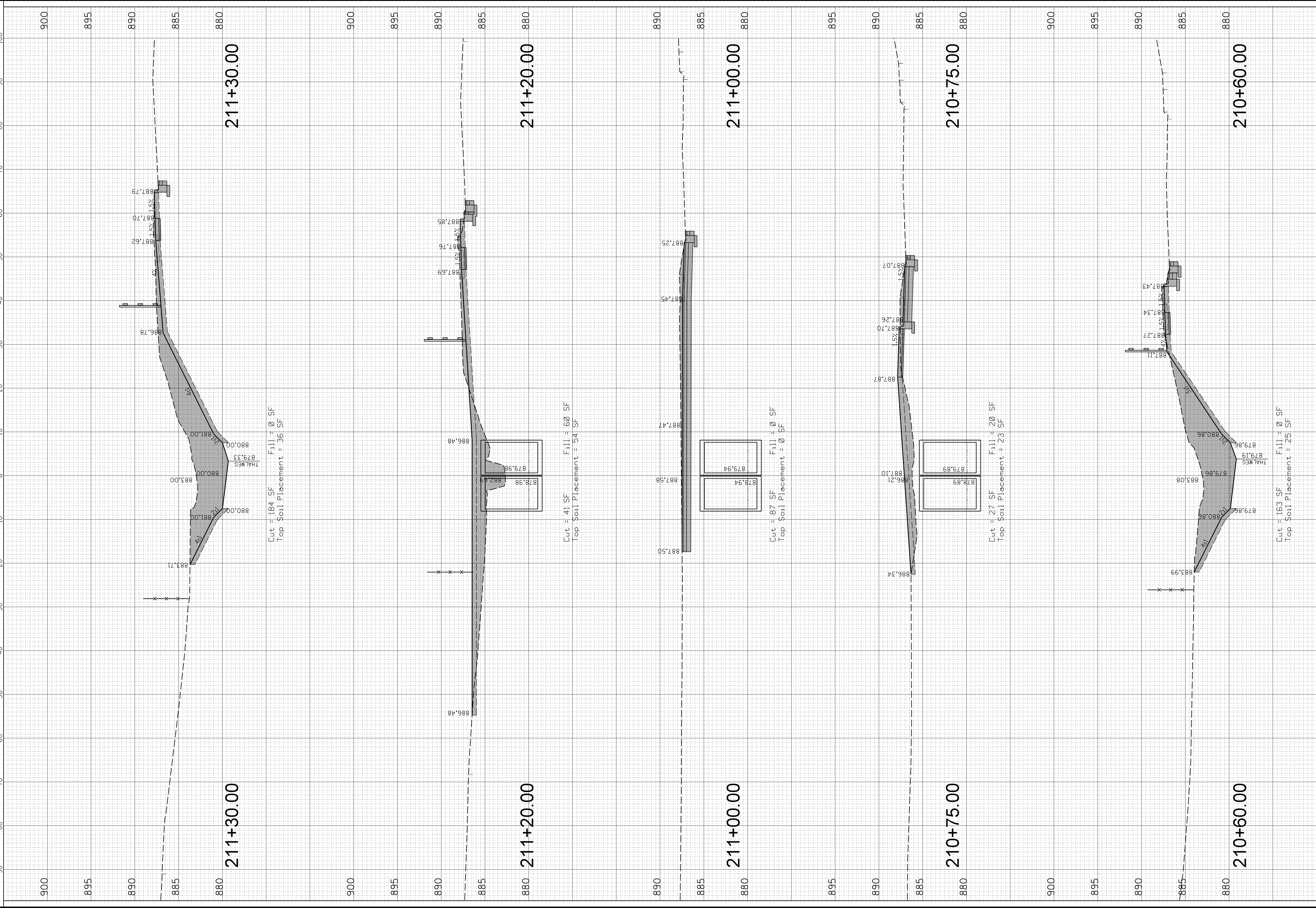


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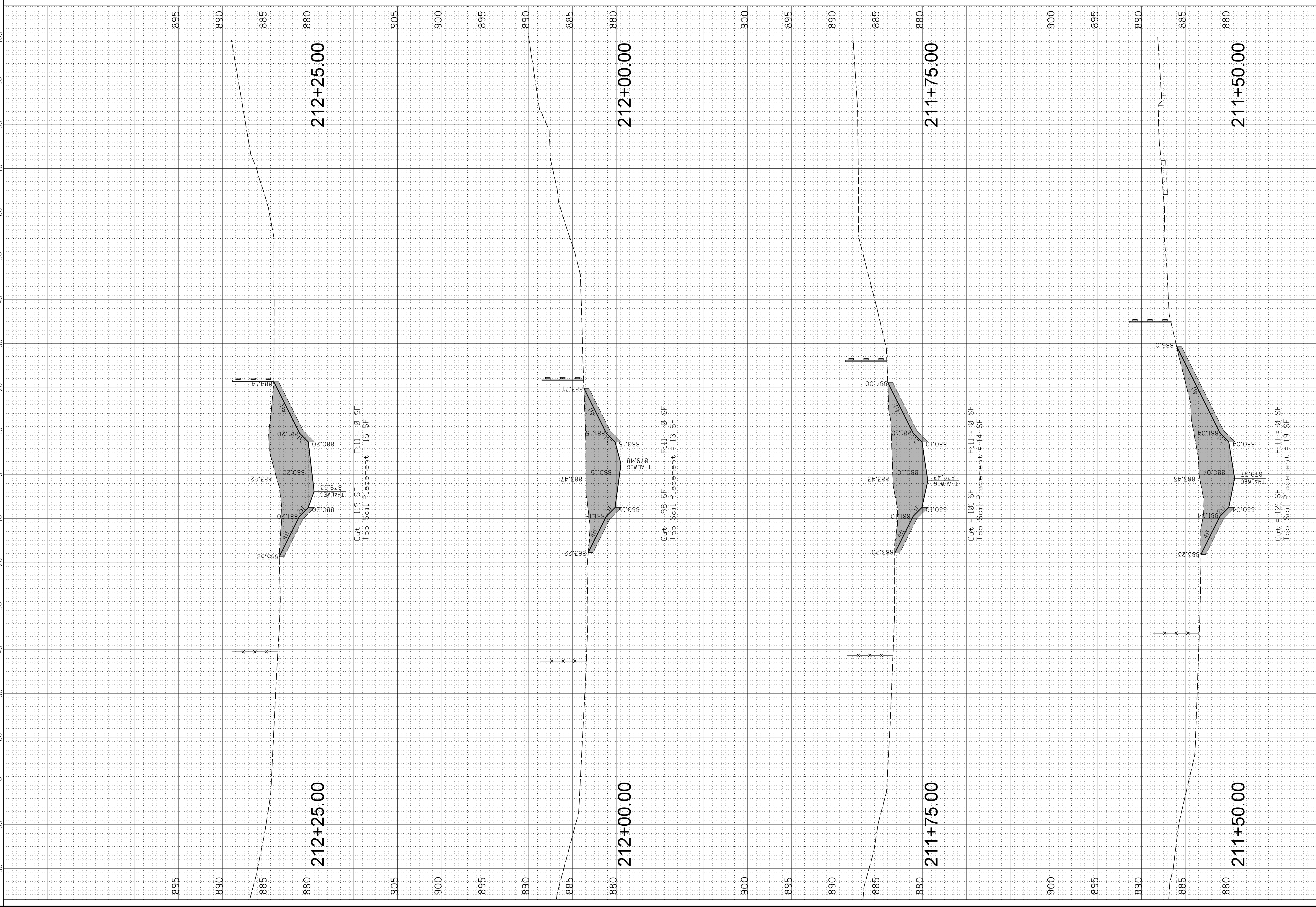
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10/6/2025	WJS		10/6/2025	WJS		10/6/2025	WJS	
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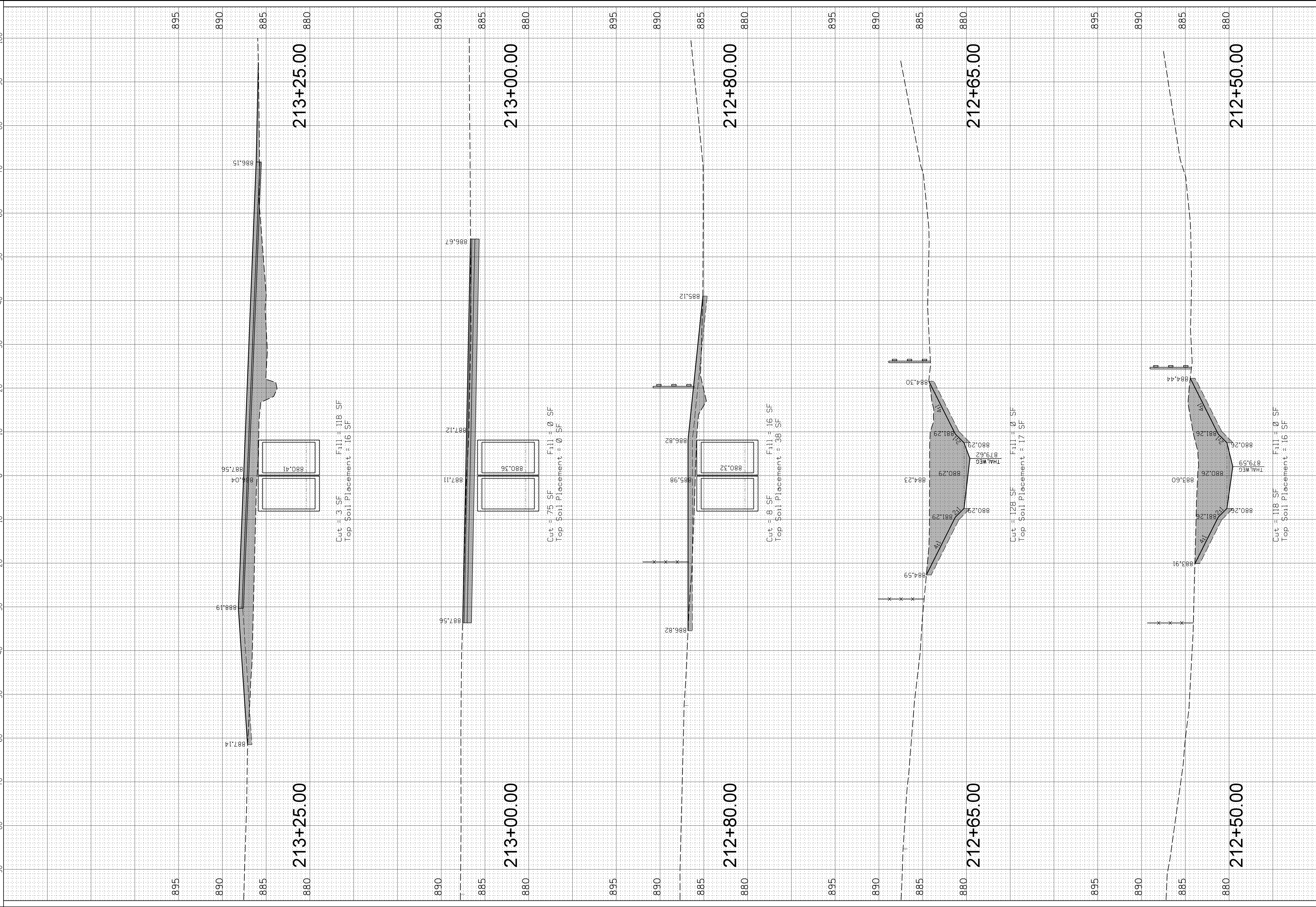
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CITY OF CRYSTAL LAKE				CRYSTAL CREEK			
DESIGN	DRAWN	CHECKED	DATE	DESIGN	DRAWN	CHECKED	DATE
10/6/2025	10/6/2025	10/6/2025	10/6/2025	10/6/2025	10/6/2025	10/6/2025	10/6/2025



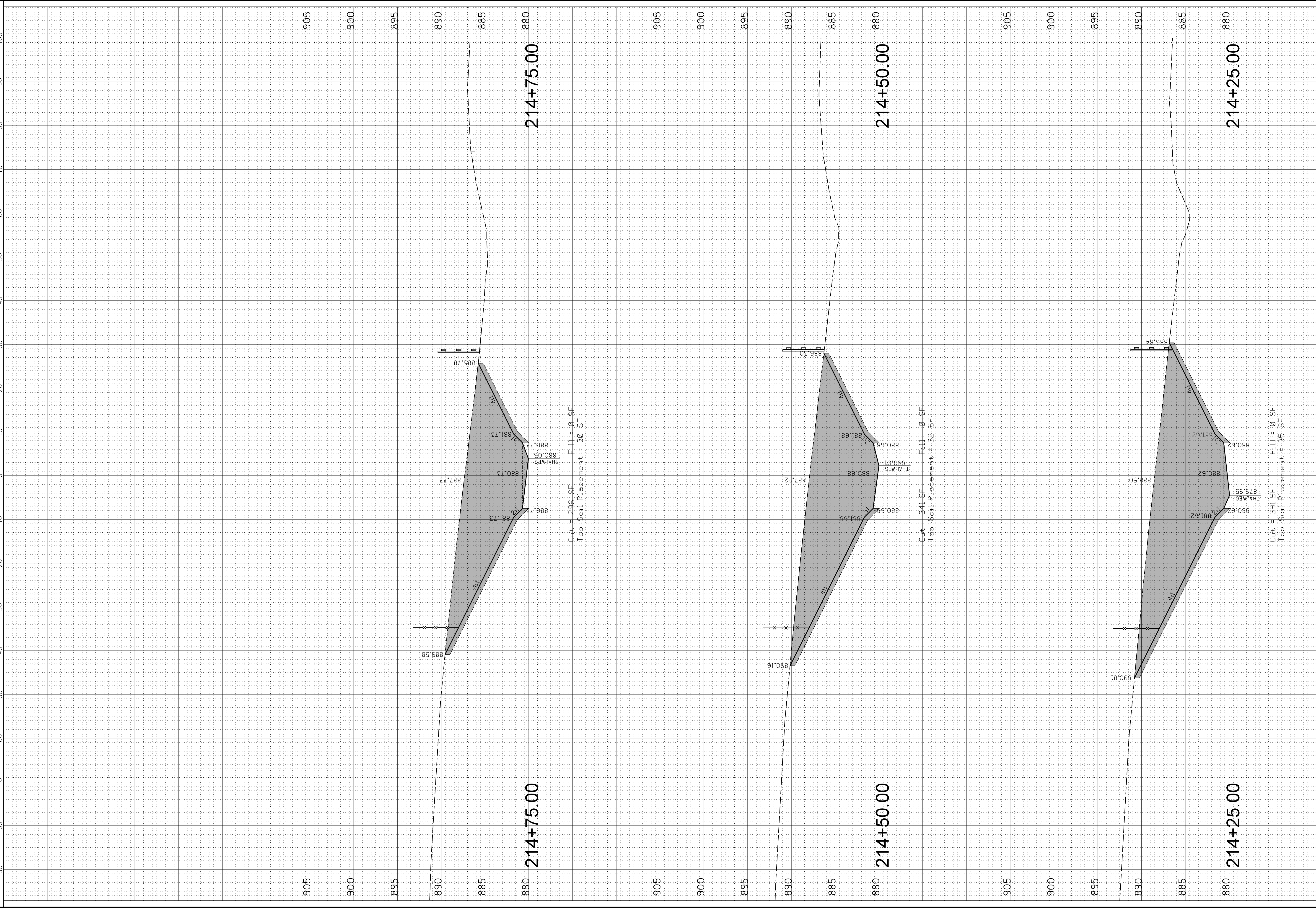
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DATE	BY	CHKD	DATE	BY	CHKD	DATE	BY	CHKD
10/6/25	WJS		10/6/25	WJS		10/6/25	WJS	
10/6/25	WJS		10/6/25	WJS		10/6/25	WJS	
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FILE NAME: N:\CRYSTAL LAKE\080364_Review\080364-00055 - CrystalCreek Daylight.dwg

DWG				DATE				DATE				DATE			
DES	CHK	APP	REV	DES	CHK	APP	REV	DES	CHK	APP	REV	DES	CHK	APP	REV



CB
ENGINEERING
CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

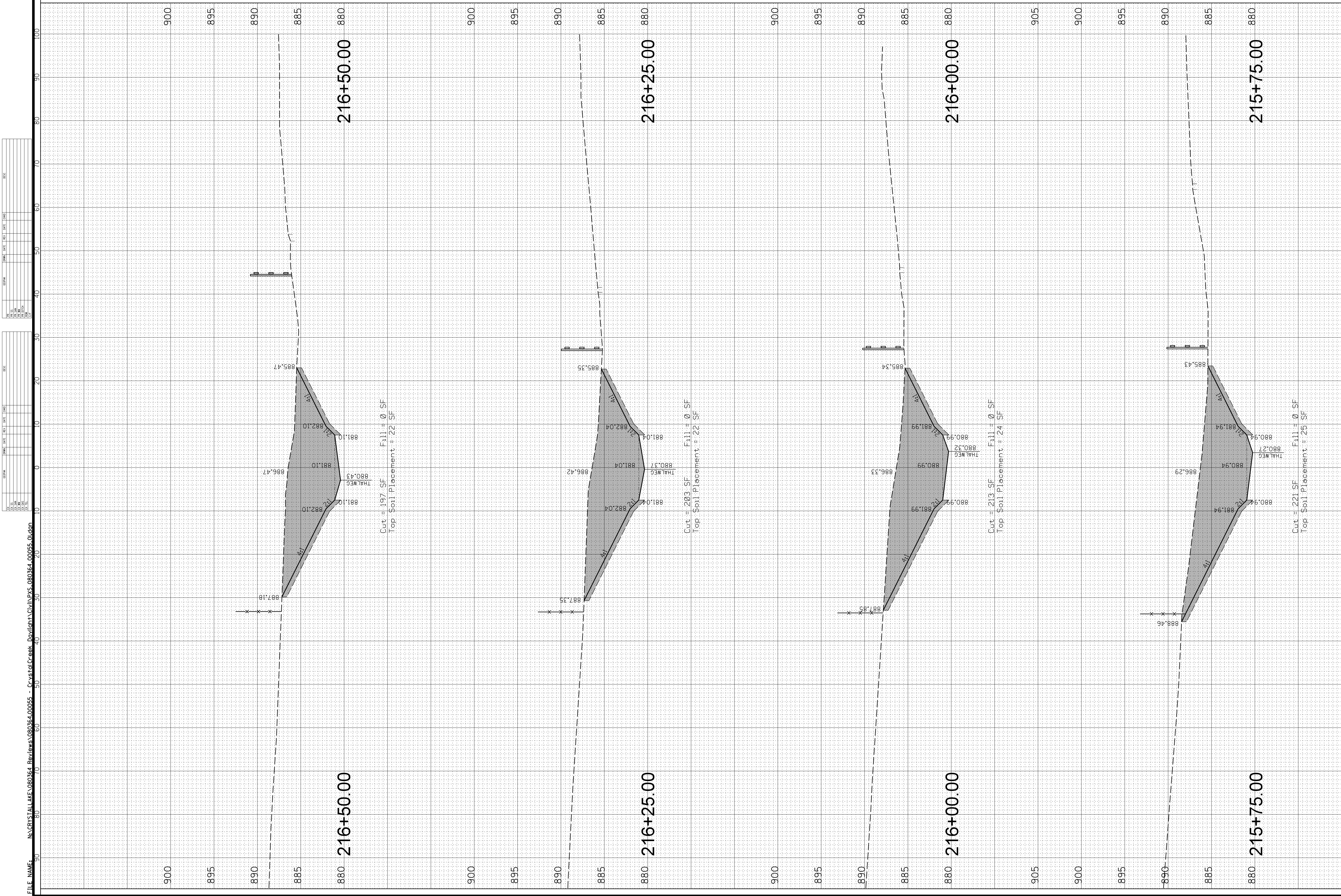
CITY OF CRYSTAL LAKE
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

DSGN.	JAL	DTG
DWN.	MAK	
CHKD.	JCS	WJS
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PLOT DATE:	10/6/2025	
CAD USER:	mkoonee	
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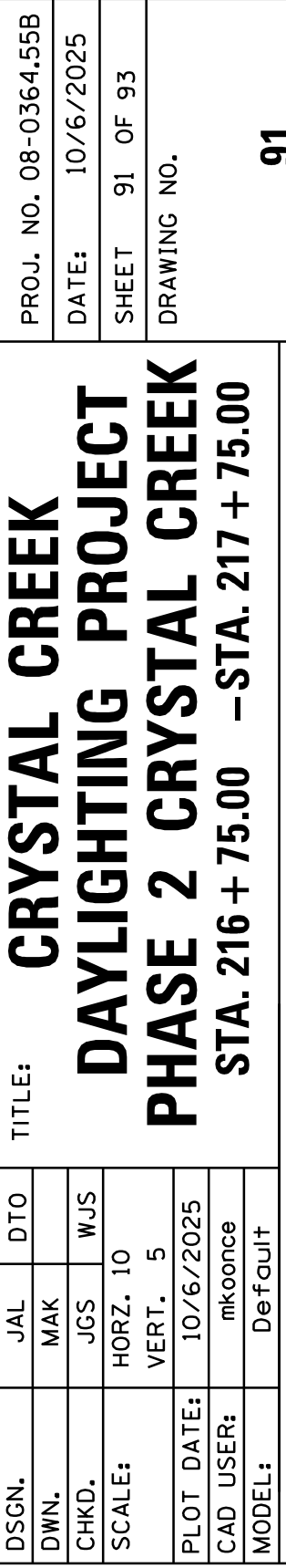
CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 CRYSTAL CREEK
STA. 214 + 25.00 -STA. 214 + 75.00

PROJ. NO.	08-0364-55B
DATE:	10/6/2025
SHEET	88 OF 93
DRAWING NO.	

DATE	BY	CHKD	DATE	BY	CHKD	DATE	BY	CHKD
10/6/25	JCS		10/6/25	JCS		10/6/25	JCS	
10/6/25	WJS		10/6/25	WJS		10/6/25	WJS	
10/6/25	MM		10/6/25	MM		10/6/25	MM	
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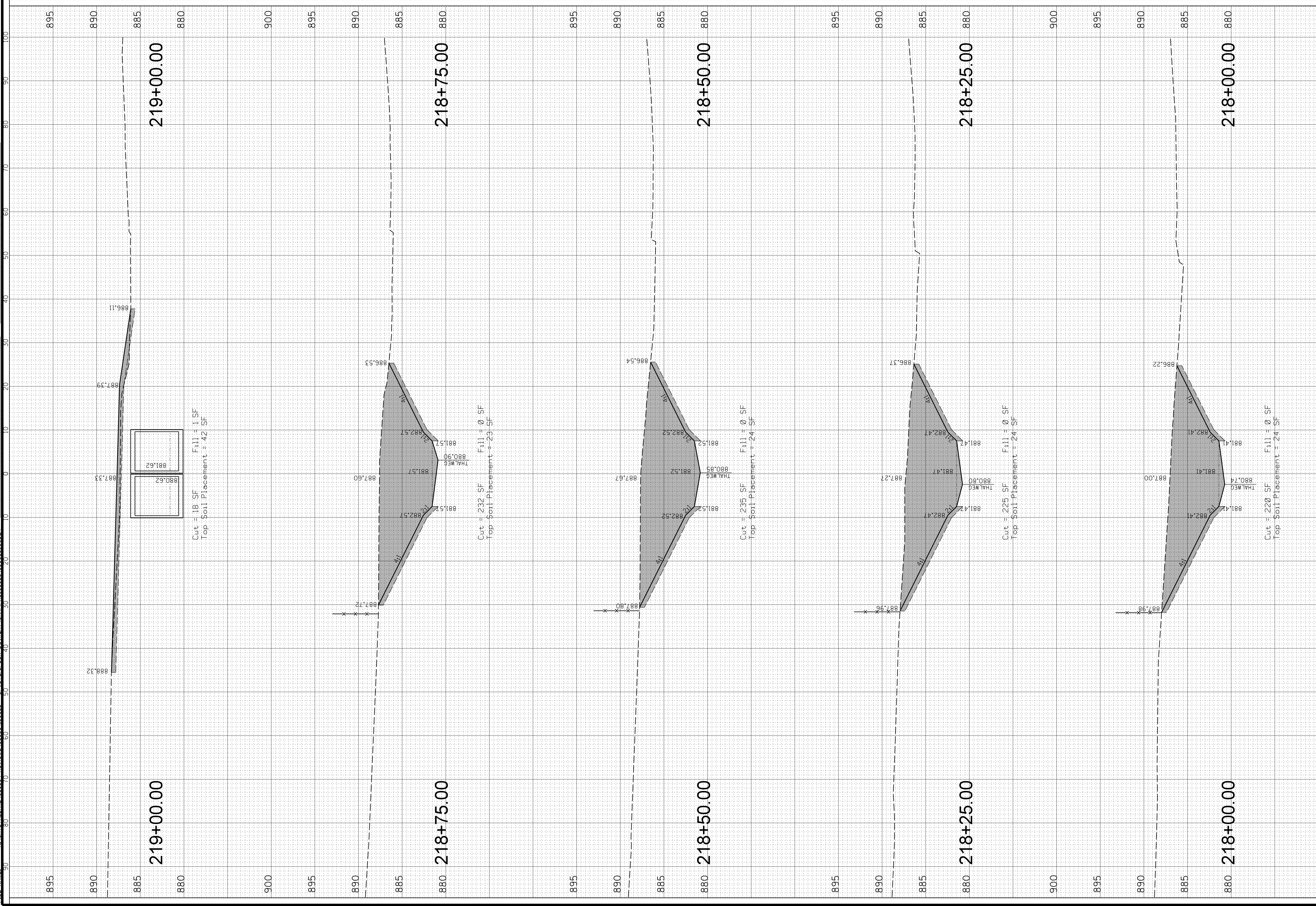
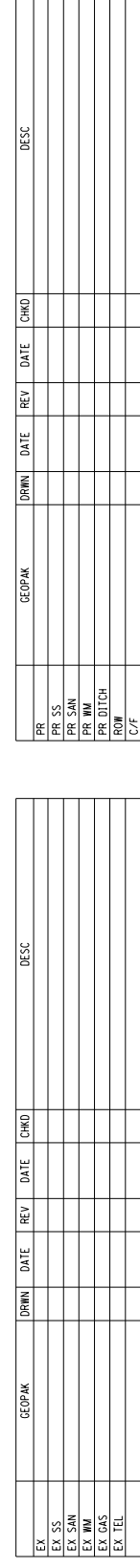


DATE	TIME	NAME	REMARKS	DATE	TIME	NAME	REMARKS
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12/30	11:45	11/30					



CB
CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

FILE NAME: N:\CRYSTALLAKE\080364_Reviews\080364,00055 - CrystalCreek_Daylight\Civil\PSX_080364_00055_01.dgn



CB
CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

SENT: **CITY OF CRYSTAL LAKE**
100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

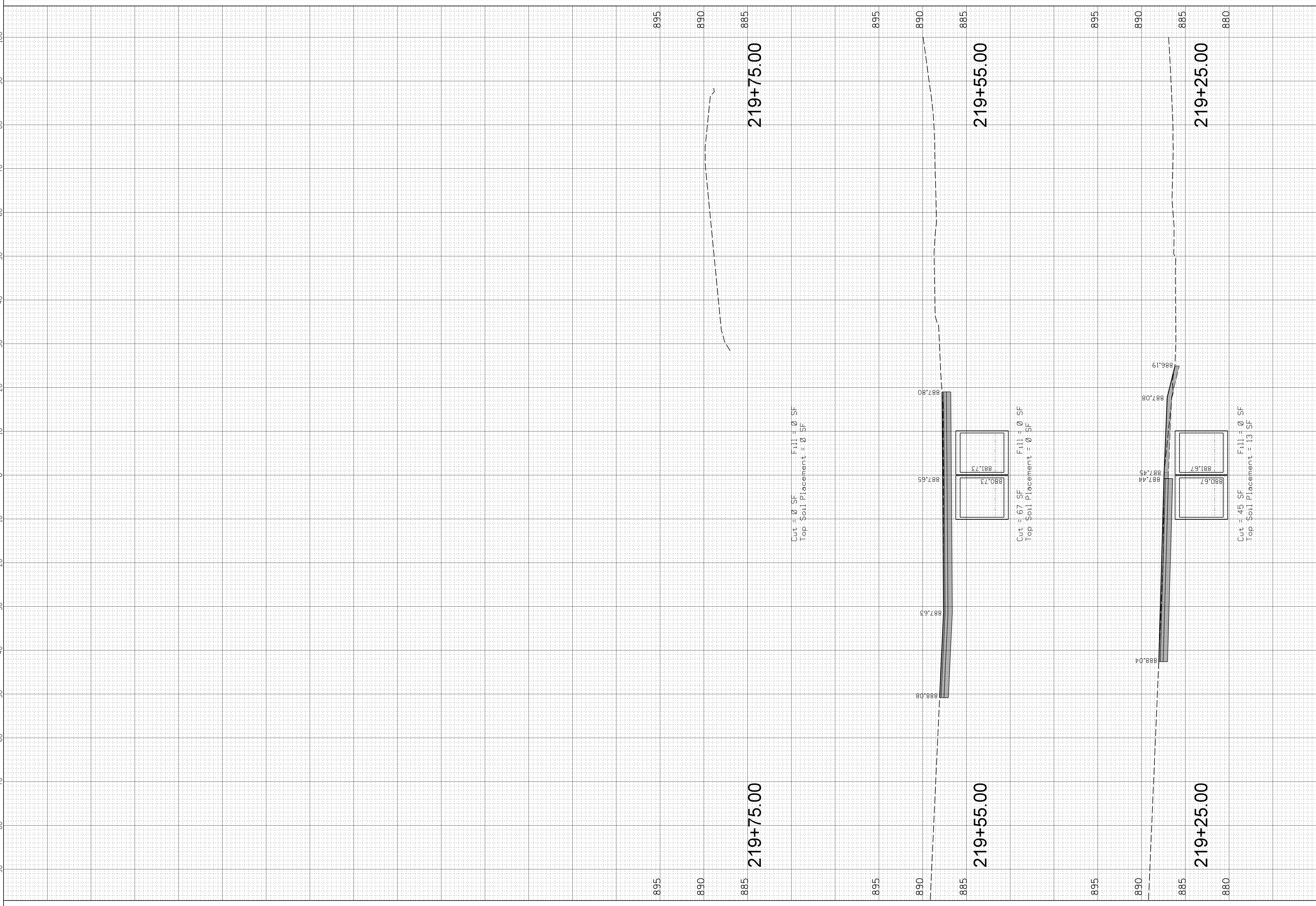
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DWN.	MAK	
CHKD.	JGS	WJS
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PLOT DATE:	10/6/2025	
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MODEL:	Default	

**TITLE: CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 CRYSTAL CREEK
STA. 218 + 00.00 - STA. 219 + 00.00**

PROJ. NO. 08-0364.55B
DATE: 10/6/2025
SHEET 92 OF 93
DRAWING NO.

92

CITY OF CRYSTAL LAKE				CRYSTAL CREEK			
DESIGN	DATE	REV	DATE	DESIGN	DATE	REV	DATE
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10/1/25				10/1/25			
10/1/25				10/1/25			





CHRISTOPHER B. BURKE ENGINEERING, LTD.

9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:

CITY OF CRYSTAL LAKE

100 W. WOODSTOCK STREET
CRYSTAL LAKE, IL. 60014

PROJECT NO. 08-0364-55B

DATE: 10/6/2025

SHEET 93 OF 93

DRAWING NO.

TITLE:

CRYSTAL CREEK
DAYLIGHTING PROJECT
PHASE 2 CRYSTAL CREEK
STA. 219 + 25.00 -STA. 219 + 75.00

DESIGNER: JAL

DATE: 10/6/2025

CHECKED: JCS

DATE: 10/6/2025

SCALE: 1"=10'

DATE: 10/6/2025

PLOT DATE: 10/6/2025

CAD USER: mkoone

MODEL: Default

93