

CITY OF BROOKLYN PARK, MINNESOTA

CONSTRUCTION PLANS FOR

2016 STREET RECONSTRUCTION PROJECT

JANUARY, 2016

PLAN REVISIONS		
DATE	SHEET NUMBER	APPROVED BY



MAP LEGEND

— PROJECT LIMITS

NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE CALL, 1-800-252-1166 OR 651-454-0002.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."



MAP OF THE
CITY OF BROOKLYN PARK
HENNEPIN COUNTY, MN

PROJECT DATUM:

HORIZONTAL: HENNEPIN COUNTY COORDINATE SYSTEM
NAD 83, 1986 ADJUSTMENT
VERTICAL: NAVD 88
BENCHMARK=MNDOT STATION BR27534
ELEVATION=916.379



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Consulting Engineers & Surveyors
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AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND



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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Joshua Eckstein
JOSHUA ECKSTEIN

LIC. NO. 48224 DATE: 01/15/2016

REVIEWED & APPROVED _____ DATE: _____
CITY ENGINEER

RECORD DRAWING INFORMATION	CITY OF BROOKLYN PARK, MINNESOTA	SHEET
OBSERVER:	2016 STREET RECONSTRUCTION PROJECT	1.01
CONTRACTOR:	TITLE SHEET	OF
DATE:		108

EXISTING

	IRON PIPE MONUMENT SET		ELECTRIC TRANSFORMER
	MONUMENT FOUND		EXHAUST VENT
	CAST IRON MONUMENT FOUND		FLAG POLE
	STONE MONUMENT FOUND		FILL PIPE
	POST SET		GAS MANHOLE
	BENCH MARK		GAS REGULATOR
	AUTO SPRINKLER		GAS VALVE
	ANTENNA		GAS METER
	AIR CONDITIONER		ACCESS GRATE
	ANCHOR		HANDICAPPED PARKING
	AIR PUMP		HAND HOLE
	APRON		HYDRANT
	BASKETBALL HOOP		IRRIGATION CONTROL VALVE
	BIRD FEEDER		LIGHT DECORATIVE
	BENCH		LIGHT POLE
	BRACE POLE		MAILBOX
	CATCH BASIN		METER
	CLOTHES LINE POLE		POST
	CONTROL POINT		MANHOLE
	CLEAN OUT		LIFT STATION MANHOLE
	COMMUNICATION PEDESTAL		MONITORING WELL
	CURB STOP VALVE		ORDER MICROPHONE
	DITCH TOP		PARK GRILL
	DRINKING FOUNTAIN		GAS PUMP
	DOWN SPOUT		POST INDICATOR VALVE
	ELECTRIC MANHOLE		PARKING METER
	ELECTRIC METER		SANITARY MANHOLE
	ELECTRIC PEDESTAL		SATELLITE DISH

PROPOSED

	ALIGNMENT/CENTERLINE
	RIGHT-OF-WAY LINE
	TEMPORARY EASEMENT
	CONSTRUCTION LIMITS
	CURB & GUTTER
	CURB & GUTTER (OUT)
	BITUMINOUS EDGE
	CONCRETE EDGE
	GRAVEL EDGE
	SILT FENCE-PREASSEMBLED
	SILT FENCE-HEAVY DUTY
	EROSION PROTECTION AT INLET
	MANHOLE
	CATCH BASIN
	STORM INLET
	APRON
	STORM SEWER
	PERFORATED PIPE DRAIN
	STORM DRAIN TILE
	CULVERT W/APRON
	STORM MANHOLE NUMBER
	SANITARY SEWER
	SANITARY FORCEMAIN
	SANITARY SEWER SERVICE
	SANITARY LIFT STATION
	SANITARY MANHOLE
	SANITARY MANHOLE NUMBER

	WATERMAIN
	WATERMAIN SERVICE
	WATER SYSTEM MANHOLE
	HYDRANT
	HYDRANT W/ VALVE
	VALVE
	CURBSTOP
	BEND
	REDUCER
	CROSS
	TEE
	CAP
	SLEEVE
	SIGN
	LIGHT POLE
	GUARD RAIL
	SOIL BORING
	WETLAND
	BUSH
	CONIFEROUS TREE
	DECIDUOUS TREE

	OVERHEAD ELECTRIC LINE		EASEMENT LINE
	UNDERGROUND ELECTRIC LINE		BUILDING SETBACK LINE
	GAS LINE		FENCE LINE
	FIBER OPTIC LINE		GUARD RAIL
	UNDERGROUND COMMUNICATIONS LINE		ACCESS CONTROL LINE
	OVERHEAD UTILITY LINE		CENTERLINE
	WATER SYSTEM		PROPERTY / LOT LINE
	STORM SEWER		ROAD RIGHT-OF-WAY LINE
	TILE LINE		RAILROAD RIGHT-OF-WAY LINE
	SANITARY SEWER		GRAVEL EDGE
	SANITARY FORCEMAIN		BITUMINOUS EDGE
	CULVERT		CONCRETE EDGE
	INTERMEDIATE CONTOURS		CURB & GUTTER
	INDEX CONTOURS		WATER EDGE
	COUNTY LINE		WATER CENTERLINE
	CITY LIMITS		HIGHWATER LINE
	SIXTEENTH LINE		WETLAND EDGE
	QUARTER LINE		SWALE CENTERLINE
	SECTION LINE		RAILROAD TRACKS
	ADJACENT LINES		TREE DRIP LINE



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Joshua C. Stein
 JOSHUA C. STEIN
 LIC. NO. 48224 DATE 01/15/2016

DESIGNED	SAE
DRAWN	DDS
CHECKED	JZE

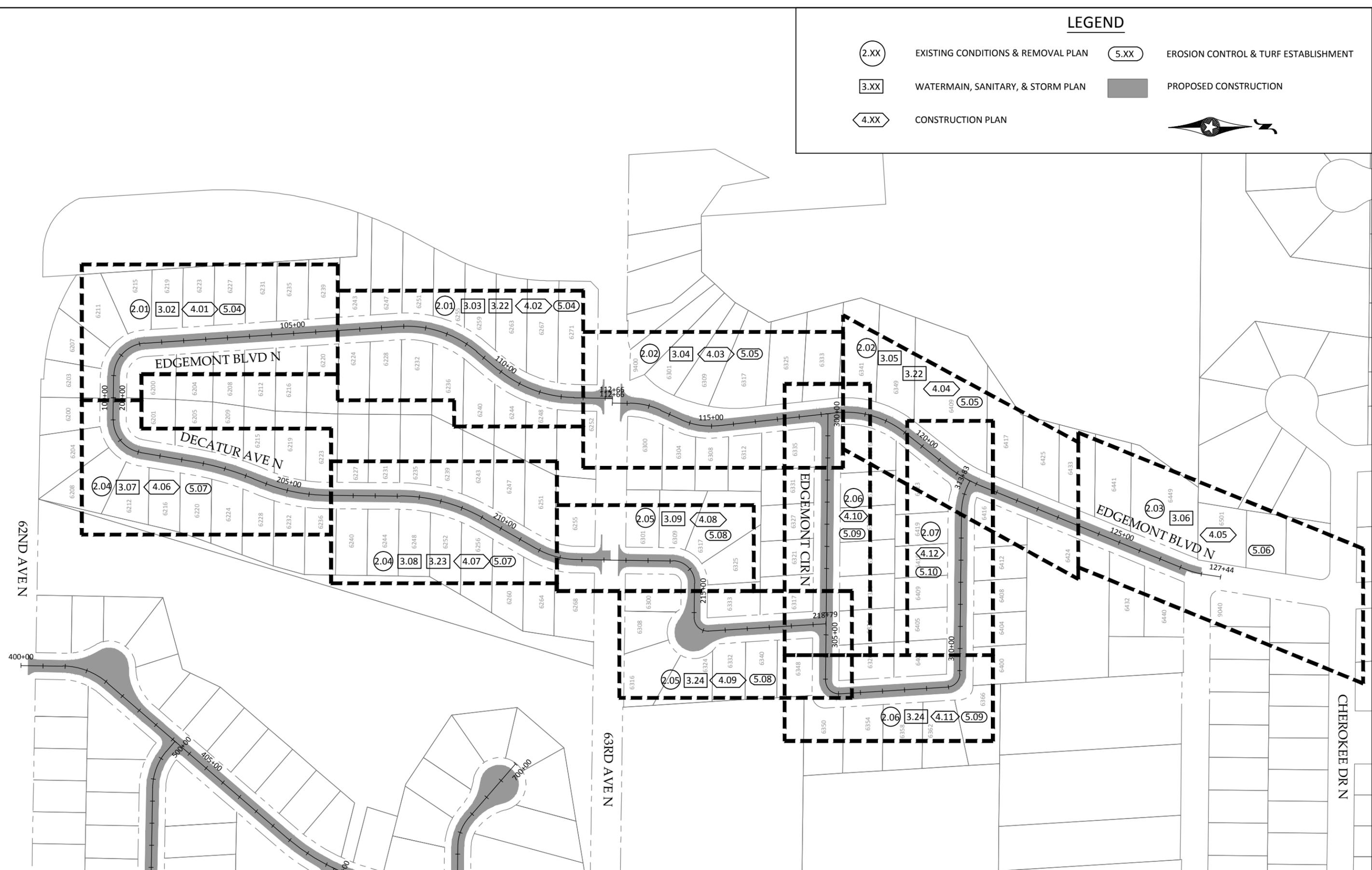
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 CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN
 AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND

REV.	BY	DATE

CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 LEGEND

LEGEND

- 2.XX EXISTING CONDITIONS & REMOVAL PLAN
- 3.XX WATERMAIN, SANITARY, & STORM PLAN
- 4.XX CONSTRUCTION PLAN
- 5.XX EROSION CONTROL & TURF ESTABLISHMENT
- PROPOSED CONSTRUCTION



Brooklyn Park
 Unique. United. Undiscovered.

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SAE
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DDS
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 AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND

REV.	BY	DATE

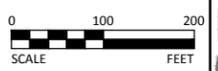
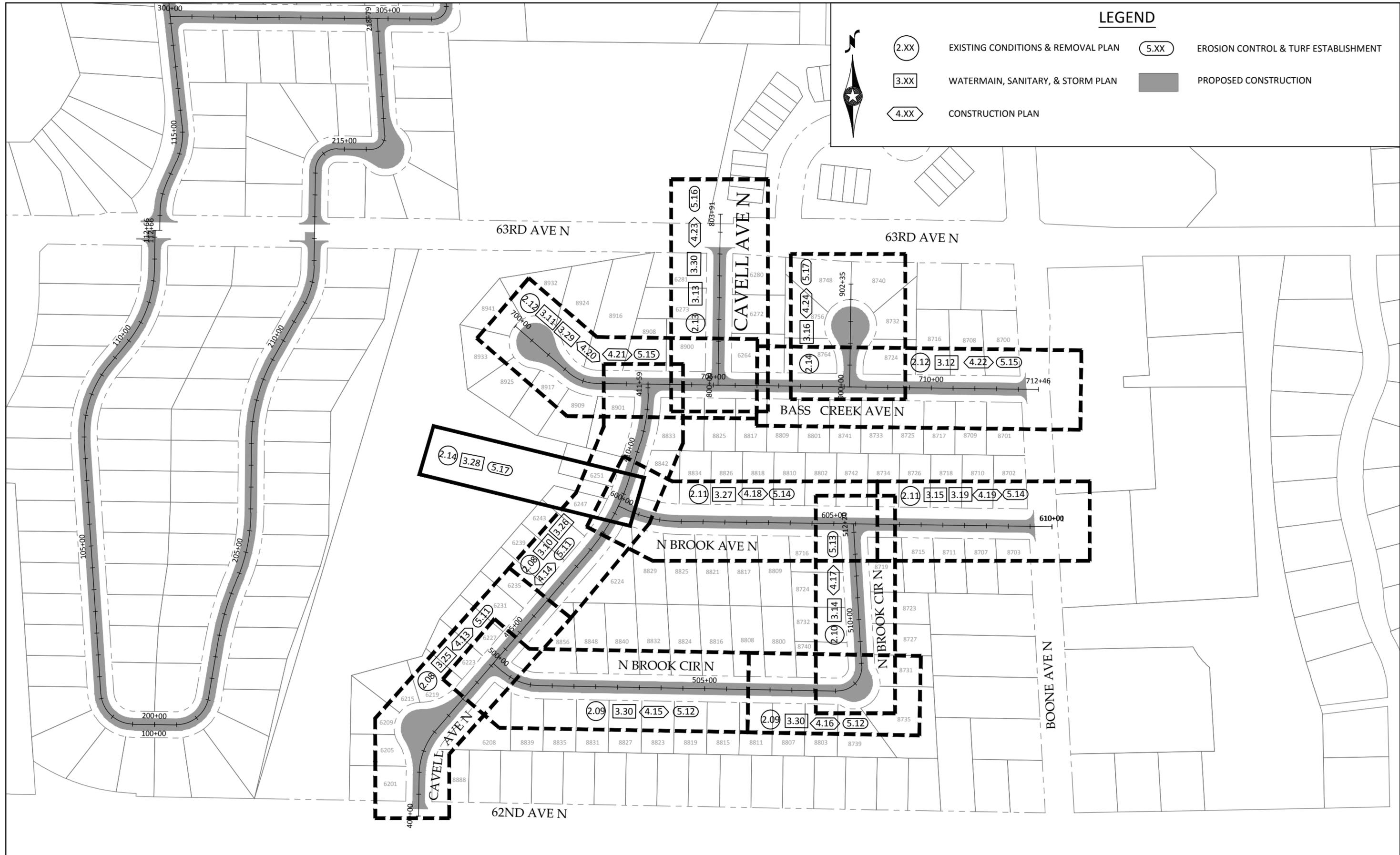
CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 GENERAL PLAN LAYOUT

SHEET
 1.03
 OF
 108

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LEGEND

- 2.XX EXISTING CONDITIONS & REMOVAL PLAN
 5.XX EROSION CONTROL & TURF ESTABLISHMENT
- 3.XX WATERMAIN, SANITARY, & STORM PLAN
 PROPOSED CONSTRUCTION
- 4.XX CONSTRUCTION PLAN



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SAE
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DDS
 CHECKED
JZE

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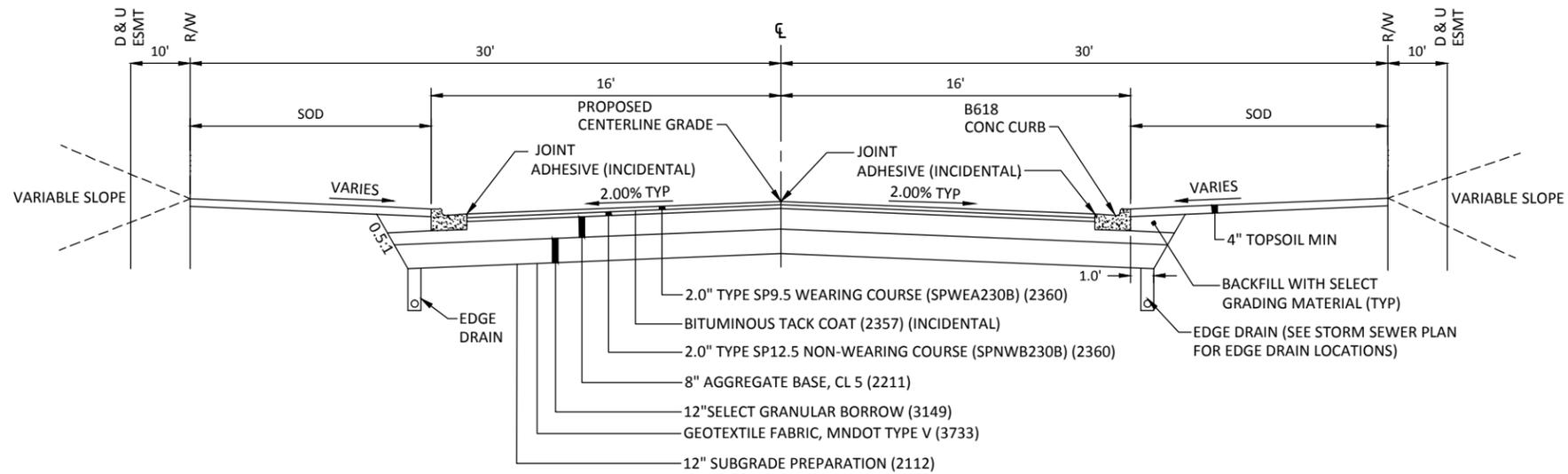
REV.	BY	DATE

CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 GENERAL PLAN LAYOUT

SHEET
 1.04
 OF
 108

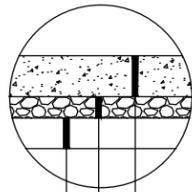
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TYPICAL SECTION
NOT TO SCALE

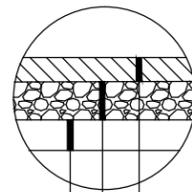


NOTES:

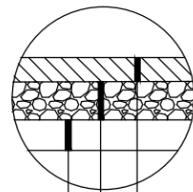
1. ANY VARIATIONS FROM THE TYPICAL SECTION DIMENSIONS ARE SHOWN ON THE PLAN DRAWINGS.
2. PAVEMENT SLOPES AT INTERSECTION LOCATIONS MAY VARY FROM THOSE SHOWN ON THE TYPICAL SECTION AND ARE SHOWN ON INTERSECTION DETAIL SHEETS.
3. GRADE ALL TOPSOIL MATERIAL TO 1" DEPTH BELOW CONCRETE SURFACES PRIOR TO PLACING SOD.
4. SEE CONSTRUCTION PLAN SHEETS FOR PAVEMENT CROSS SLOPES.



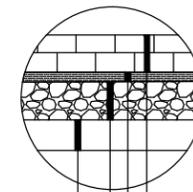
6" CONCRETE DRIVEWAY PAVEMENT (2531)
6" AGGREGATE BASE, CL 5 (2211)
SUBGRADE PREPARATION (2112) (INCIDENTAL)
CONCRETE DRIVEWAY PAVEMENT
NOT TO SCALE



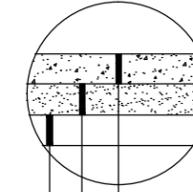
3" TYPE SP9.5 WEARING COURSE (SPWEA240B) (2360)
3" AGGREGATE BASE CL 5 (2211)
SUBGRADE PREPARATION (2112) (INCIDENTAL)
BITUMINOUS DRIVEWAY PAVEMENT
NOT TO SCALE



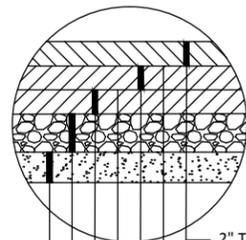
3" TYPE SP9.5 WEARING COURSE (SPWEA240B) (2360)
6" AGGREGATE BASE CL 5 (2211)
SUBGRADE PREPARATION (2112) (INCIDENTAL)
BITUMINOUS TRAIL PAVEMENT
NOT TO SCALE



INSTALL SALVAGED BRICK PAVERS
1" SAND LEVELING COURSE (INCIDENTAL)
6" AGGREGATE BASE CL 5 (2211)
SUBGRADE PREPARATION (2112) (INCIDENTAL)
BRICK PAVER DRIVEWAY PAVEMENT
NOT TO SCALE

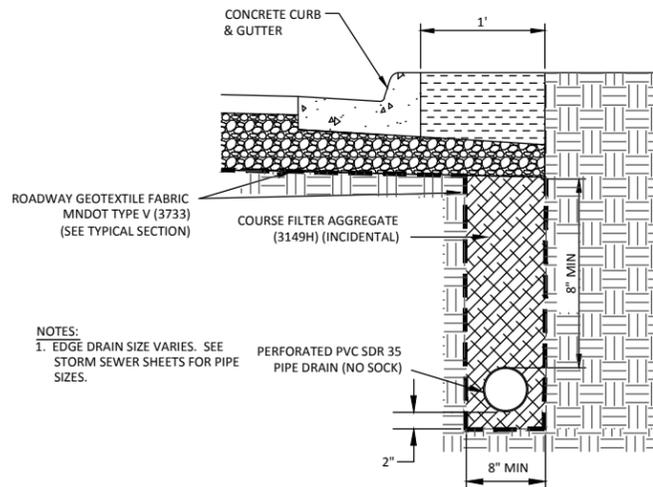


4" CONCRETE WALK (2521)
4" AGGREGATE BASE, CL 5 (2211)
SUBGRADE PREPARATION (2112) (INCIDENTAL)
CONCRETE WALK
NOT TO SCALE



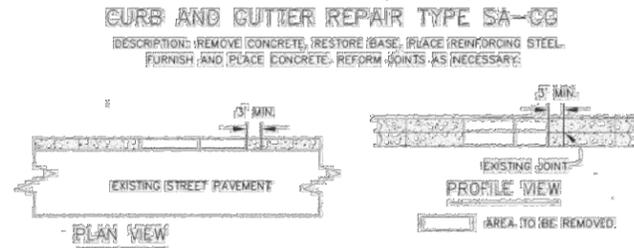
2" TYPE SP9.5 WEARING COURSE (SPWEA230B) (2360)
BITUMINOUS TACK COAT (2357) (INCIDENTAL)
3" TYPE SP12.5 NON-WEARING COURSE (SPNWB230B) (2360)
BITUMINOUS TACK COAT (2357) (INCIDENTAL)
3.5" TYPE SP12.5 NON-WEARING COURSE (SPNWB230B) (2360)
6" AGGREGATE BASE, CL 5 (2211)
12" SELECT GRANULAR BORROW (3149)
63RD AVENUE PAVEMENT SECTION
NOT TO SCALE

NOTE: DETAILS ARE NOT TO SCALE



**SUBSURFACE EDGE DRAIN
POLYETHYLENE PIPE**
NOT TO SCALE

NOTES:
1. EDGE DRAIN SIZE VARIES. SEE STORM SEWER SHEETS FOR PIPE SIZES.



CURB AND GUTTER REPAIR TYPE SA-CB

DESCRIPTION: REMOVE CONCRETE, RESTORE BASE, PLACE REINFORCING STEEL, FURNISH AND PLACE CONCRETE, REFORM JOINTS, AS NECESSARY.

WORK TO BE DONE

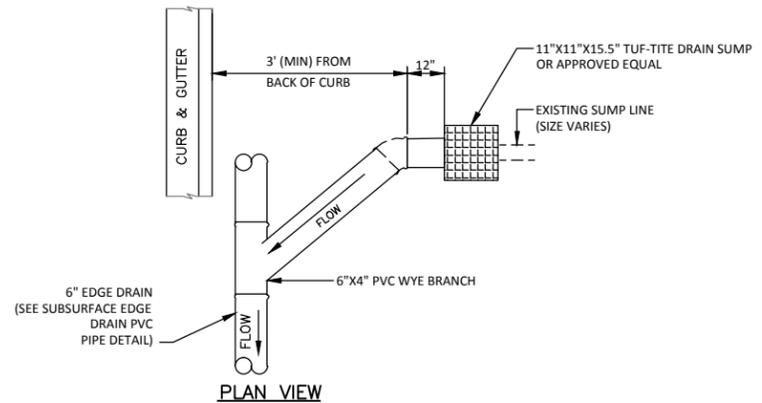
1. Define removal area at existing joint or if necessary saw full depth at gutter and as much as possible of curb. Remove concrete curb and gutter sections.
2. Restore load transfer at each end of removal area by line following: At each end of the removal area furnish and install No. 4 reinforcing steel bars 18" long. Drill and hammer bars 18" into existing curb & gutter.
3. If existing Aggregate base is inadequate, place 4" of Class 5 aggregate. Restore subgrade by compaction with hand operated vibratory compactor.
4. Place 1/2" insulation material only at ends of city blocks abutting pedestrian ramp areas or to isolate driveway concrete.
5. Clean in place vertical slab surface. Place structural concrete. Finish to grade, slope, and texture. Apply cure.
6. Restore joints by green sawing or hand tooling to match existing joint pattern.

BASIS OF PAYMENT

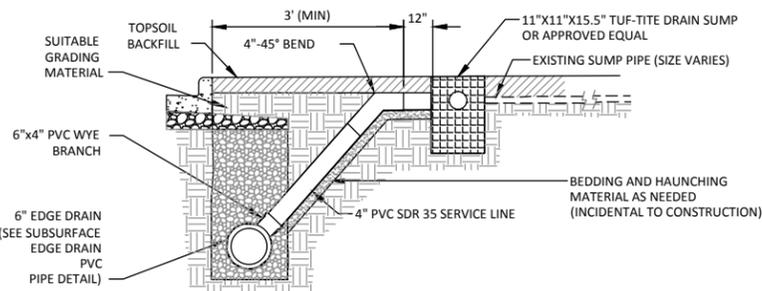
Measurement and payment shall be included in the contract prices otherwise specified in the Special Conditions.

2301 Curb and Gutter Repair Type SA-CB lin. ft.

**CONCRETE CURB AND GUTTER REPAIR
DETAIL DRAWING ST-22
CITY OF BROOKLYN PARK**
NOT TO SCALE



PLAN VIEW

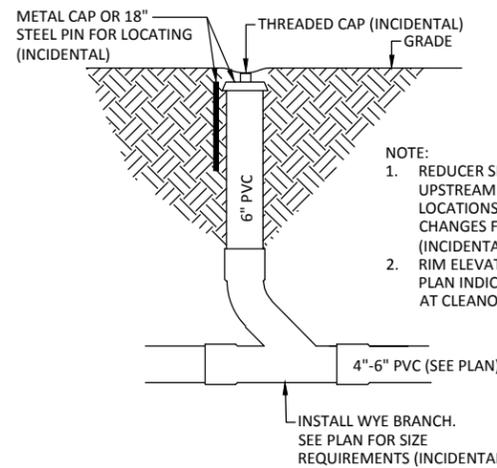


PROFILE VIEW

SUMP PUMP LINE CONNECTION

NOT TO SCALE

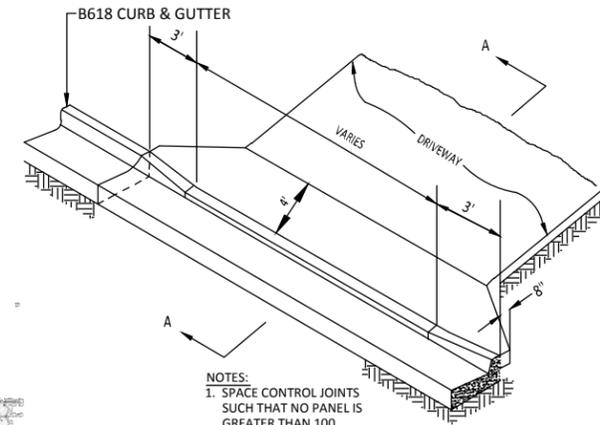
NOTES:
1. ALL PIPE FITTINGS AND DRAIN SUMP REQUIRED ARE CONSIDERED INCIDENTAL TO THE SUMP PUMP LINE CONNECTION.



SUBSURFACE PIPE DRAIN CLEANOUT

NOT TO SCALE

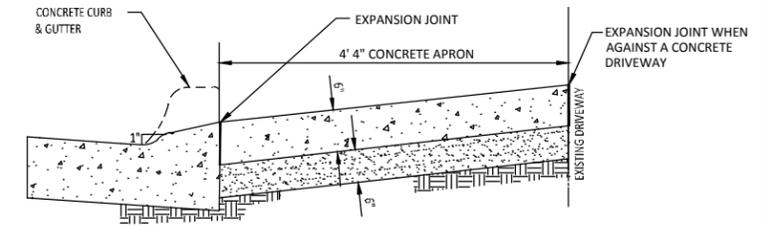
NOTE:
1. REDUCER SHALL BE INSTALLED UPSTREAM OF CLEANOUT FOR LOCATIONS WHERE DRAINTILE CHANGES FROM 4" TO 6" (INCIDENTAL)
2. RIM ELEVATIONS PROVIDED ON PLAN INDICATE FINISH GROUND AT CLEANOUT.



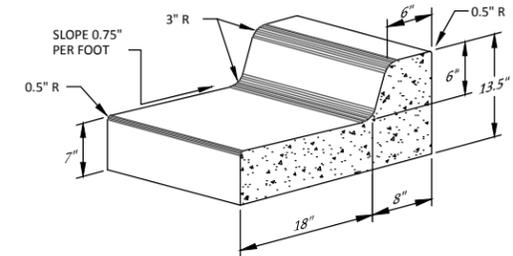
CONCRETE DRIVEWAY APRON

NOT TO SCALE

NOTES:
1. SPACE CONTROL JOINTS SUCH THAT NO PANEL IS GREATER THAN 100 SQUARE FEET.

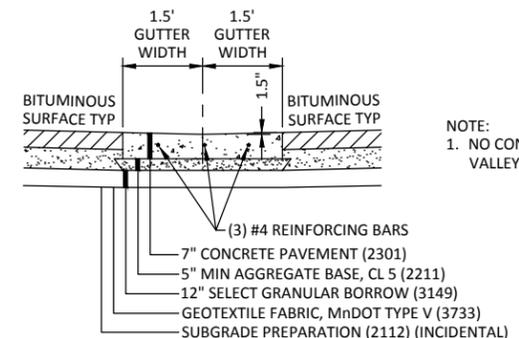
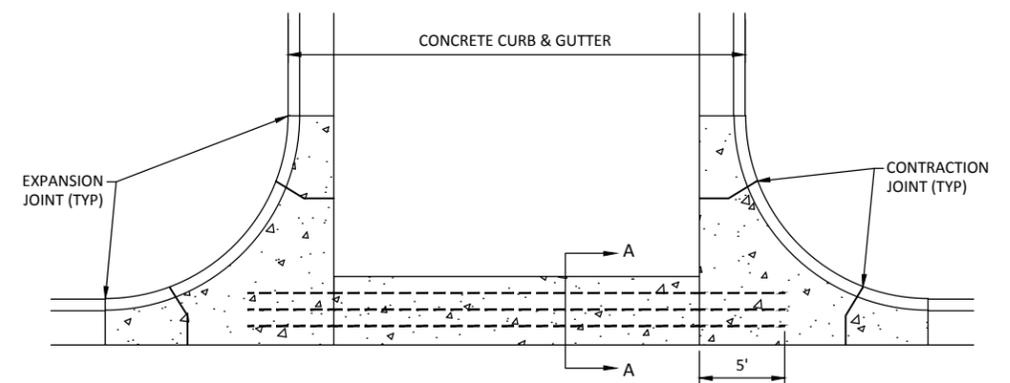


SECTION A-A



CURB & GUTTER DESIGN B618

NOT TO SCALE



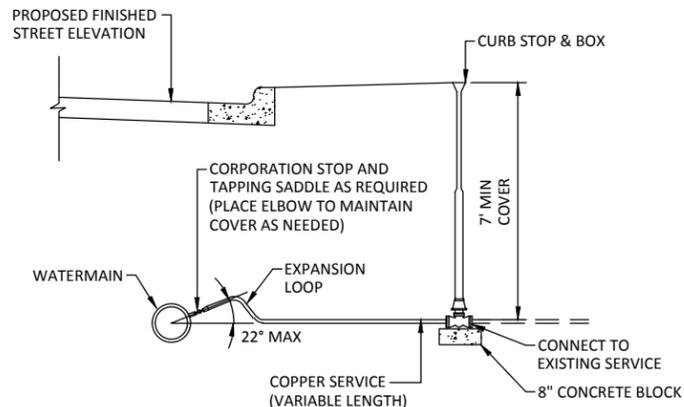
SECTION A-A

CONCRETE VALLEY GUTTER

NOT TO SCALE

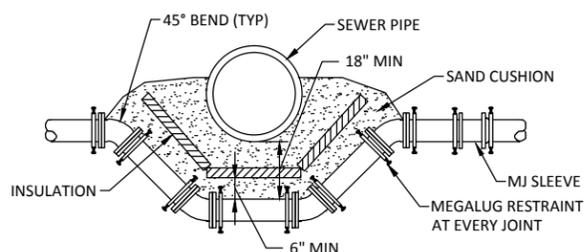
NOTE:
1. NO CONTRACTION JOINTS IN VALLEY GUTTER

NOTE: DETAILS ARE NOT TO SCALE



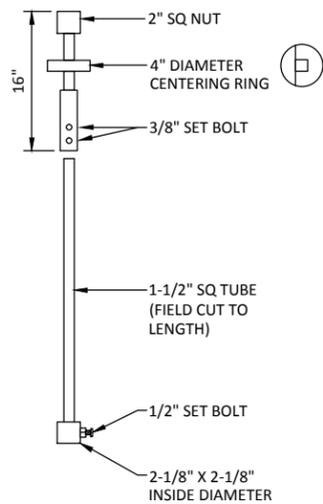
NOTE: WHERE NO EXISTING WATER SERVICE IS INPLACE, INSTALL 0.5" FLARED & CRIMPED COPPER SERVICE LINE. INSTALL 1" TYPE K COPPER SERVICE LINES UNLESS OTHERWISE NOTED OR IF LARGER EXISTING LINE IS FOUND THAT SIZE SHALL BE USED.

WATER SERVICE INSTALLATION RECONSTRUCTION
NOT TO SCALE



- NOTES:
1. PROVIDE MEGALUG RESTRAINT AT JOINT ON BENDS AND AS SHOWN THIS DETAIL
 2. COAT ALL ANCHORAGE AS PER SPECS
 3. PROVIDE SAND CUSHION BETWEEN TOP OF WATERMAIN AND BOTTOM OF SEWER PIPE, MIN DIMENSIONS AS SHOWN THIS DETAIL (INCIDENTAL)
 4. INSULATION TO BE 2" THICK POLYSTYRENE

WATERMAIN OFFSET
NOT TO SCALE



ADJUSTABLE VALVE EXTENSION STEM
NOT TO SCALE

- NOTES:
1. VALVE BOX SHALL BE CENTERED ON OPERATING NUTS, STRAIGHT, FREE FROM DEBRIS, AND ALL SECTIONS UNBROKEN
 2. VALVES IN EASEMENTS SHALL HAVE CHANNEL POST WITNESS MARKERS WITH REFLECTIVE "GV" SIGN
 3. DEEP VALVES SHALL HAVE NUT EXTENSIONS INSTALLED TO ELEVATION TO ACCOMMODATE STANDARD 10' KEY (INCIDENTAL)
 4. COMPACTION WITH MECHANICAL TAMPER AROUND VALVE BOX SHALL BE PLACED AND COMPACTED WITH 2' LIFTS TO ACHIEVE 95% COMPACTION
 5. GATE VALVES LOCATED WITHIN THE CONCRETE SIDEWALK SHALL INCLUDE A METAL SEPARATOR BETWEEN THE VALVE BOX AND THE CONCRETE AND A METAL BOX COVER IF IT FALLS IN A DRIVEWAY

VALVE BOX SETTING TO BE 1/2" BELOW BASE OR WEAR COURSE AND AT GRADE IN TURF

VALVE BOX TO BE SET TO HAVE 6" ADJUSTMENT UP AND DOWN FROM FINISH GRADE

VALVE BOX & COVER AS SPECIFIED

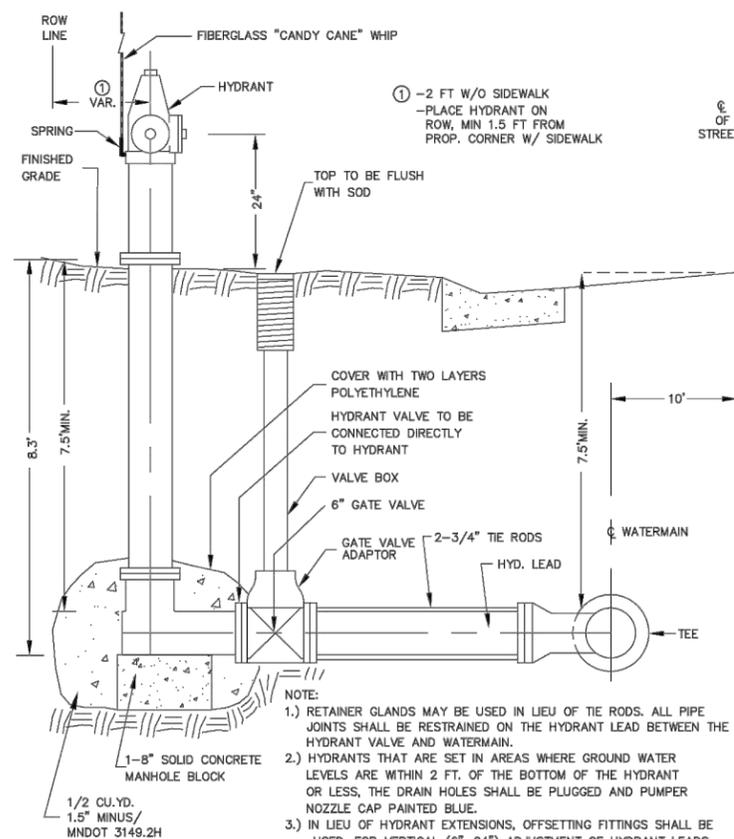
BOTTOM SECTION

BONNETT SHALL BE PLACED HALFWAY BETWEEN TOP OF FLANGE AND BOLTS

REQUIRED GATE VALVE ADAPTOR (INCIDENTAL)

WATERMAIN

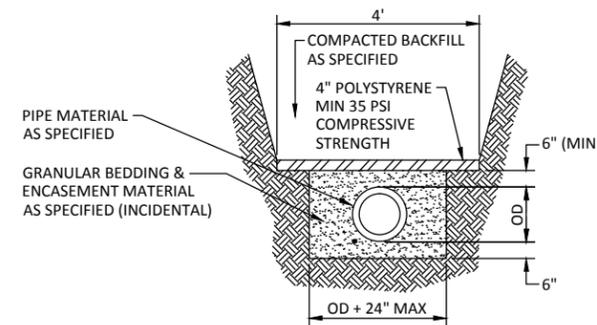
GATE VALVE BOX INSTALLATION
NOT TO SCALE



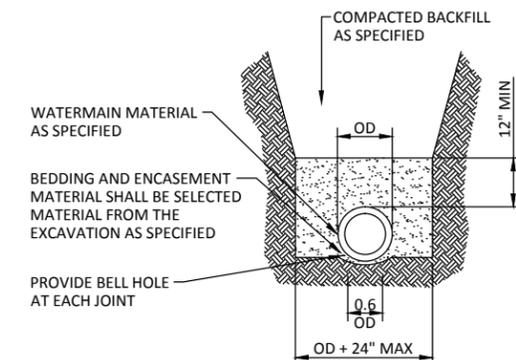
- NOTE:
- 1.) RETAINER GLANDS MAY BE USED IN LIEU OF THE RODS. ALL PIPE JOINTS SHALL BE RESTRAINED ON THE HYDRANT LEAD BETWEEN THE HYDRANT VALVE AND WATERMAIN.
 - 2.) HYDRANTS THAT ARE SET IN AREAS WHERE GROUND WATER LEVELS ARE WITHIN 2 FT. OF THE BOTTOM OF THE HYDRANT OR LESS, THE DRAIN HOLES SHALL BE PLUGGED AND PUMPER NOZZLE CAP PAINTED BLUE.
 - 3.) IN LIEU OF HYDRANT EXTENSIONS, OFFSETTING FITTINGS SHALL BE USED, FOR VERTICAL (6"-24") ADJUSTMENT OF HYDRANT LEADS. PAYMENT FOR THESE FITTINGS SHALL BE INCLUDED IN THE BID ITEMS "REMOVE AND RELOCATE HYDRANT" AND "HYDRANT W/VALVE".

HYDRANT DETAIL DRAWING W-3
CITY OF BROOKLYN PARK
NOT TO SCALE

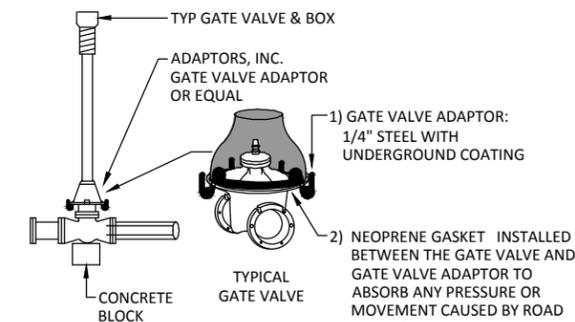
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2-98
3-07
3-11
11-15



WATERMAIN INSULATION
NOT TO SCALE

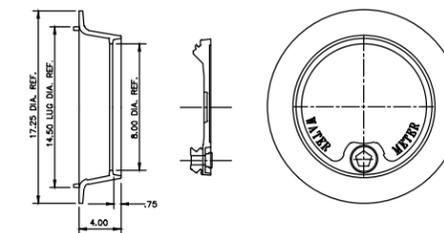


DIP WATERMAIN TRENCH
NOT TO SCALE



GATE VALVE ADAPTOR
NOT TO SCALE

*INSTALL OVER CURB BOXES LOCATED IN CONCRETE WALKS OR DRIVEWAYS



WATER SERVICE LID COVER

NOTE: DETAILS ARE NOT TO SCALE



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LIC. NO. 48224 DATE 01/15/2016

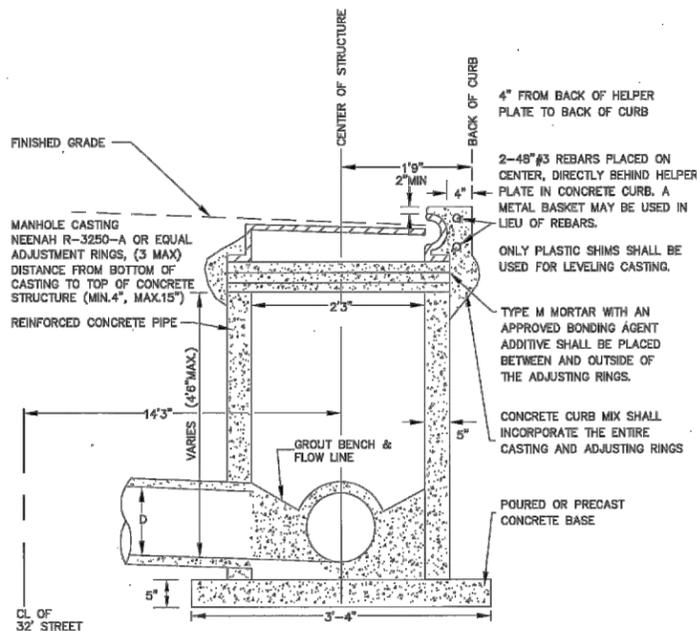
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MANKATO, MN FAIRMONT, MN SLEEPY EYE, MN BURNSVILLE, MN WILLMAR, MN
CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN
AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND

REV.	BY	DATE

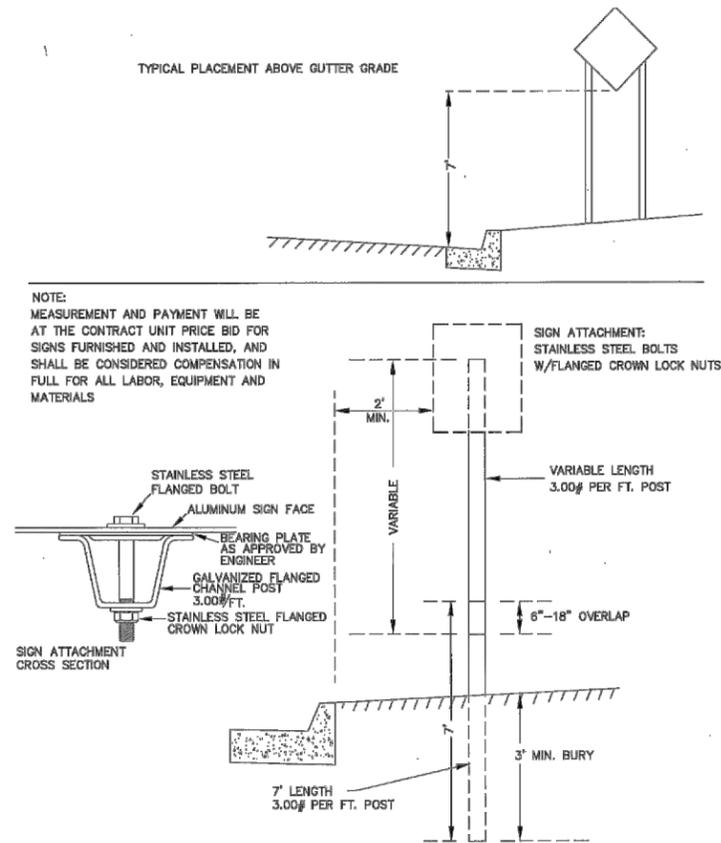
CITY OF BROOKLYN PARK, MINNESOTA
2016 STREET RECONSTRUCTION PROJECT
CONSTRUCTION DETAILS

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OF
108



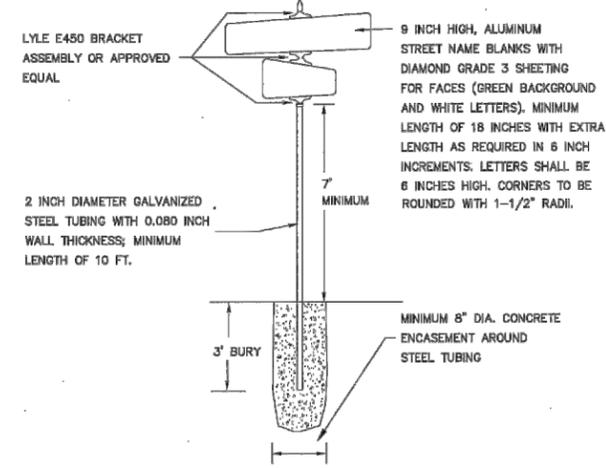
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CITY OF BROOKLYN PARK**
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NOT TO SCALE
2-2009



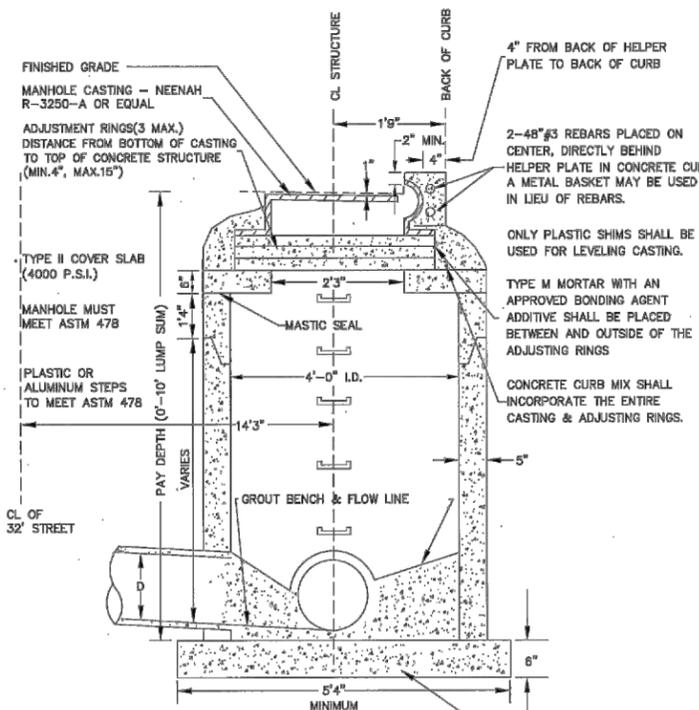
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DETAIL DRAWING ST-15
CITY OF BROOKLYN PARK**
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NOT TO SCALE
3-2007
3-2011



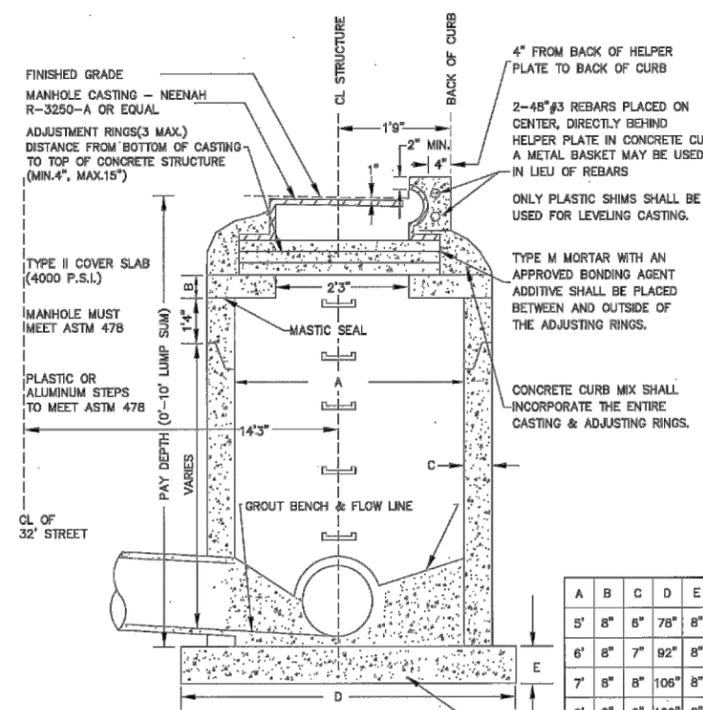
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CITY OF BROOKLYN PARK**
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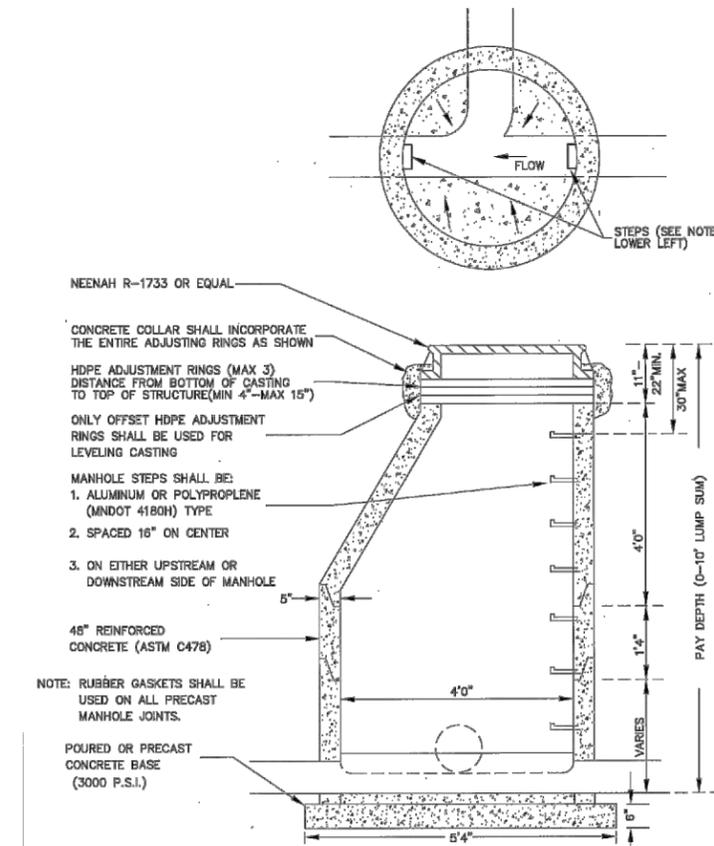
**STANDARD CATCH BASIN
DETAIL DRAWING S-10
CITY OF BROOKLYN PARK**
NOT TO SCALE

NOT TO SCALE
2-2009



**LARGE DIAMETER CATCH BASIN
DETAIL DRAWING S-12
CITY OF BROOKLYN PARK**
NOT TO SCALE

NOT TO SCALE
2-2009



**STANDARD MANHOLE
DETAIL DRAWING S-1
CITY OF BROOKLYN PARK**
NOT TO SCALE

NOT TO SCALE
2-2009

NOTE: DETAILS ARE NOT TO SCALE



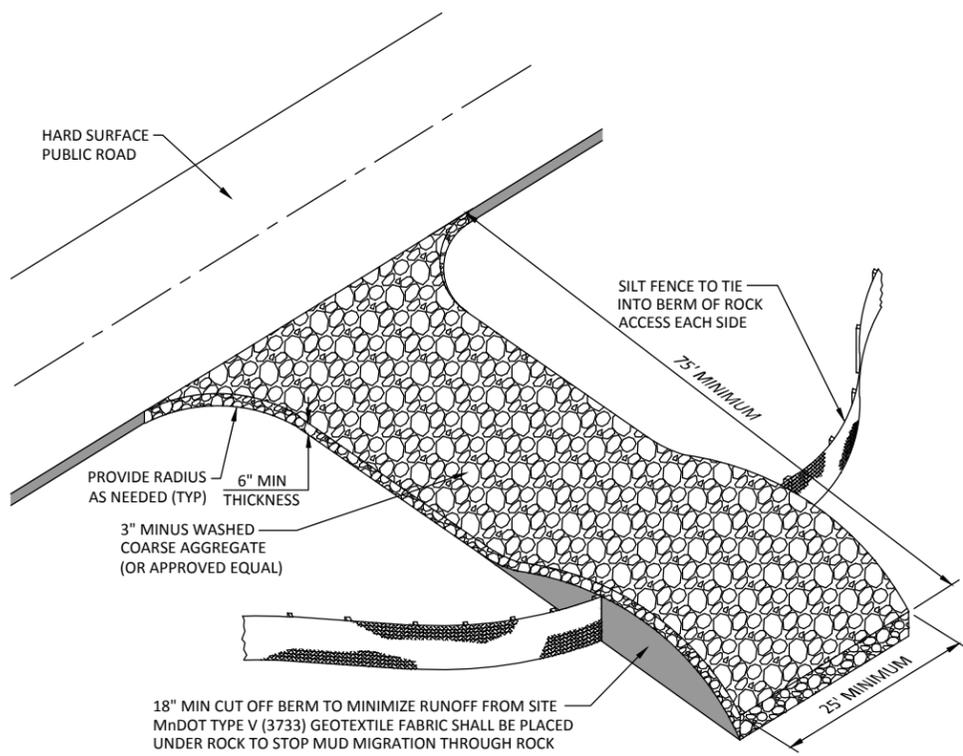
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Joshua Eckstein
JOSHUA ECKSTEIN
LIC. NO. 48224 DATE 01/15/2016

DESIGNED: SAE
DRAWN: DDS
CHECKED: JZE
BOLTON & MENK, INC.
Consulting Engineers & Surveyors
MANKATO, MN FAIRMONT, MN SLEEPY EYE, MN BURNSVILLE, MN WILLMAR, MN
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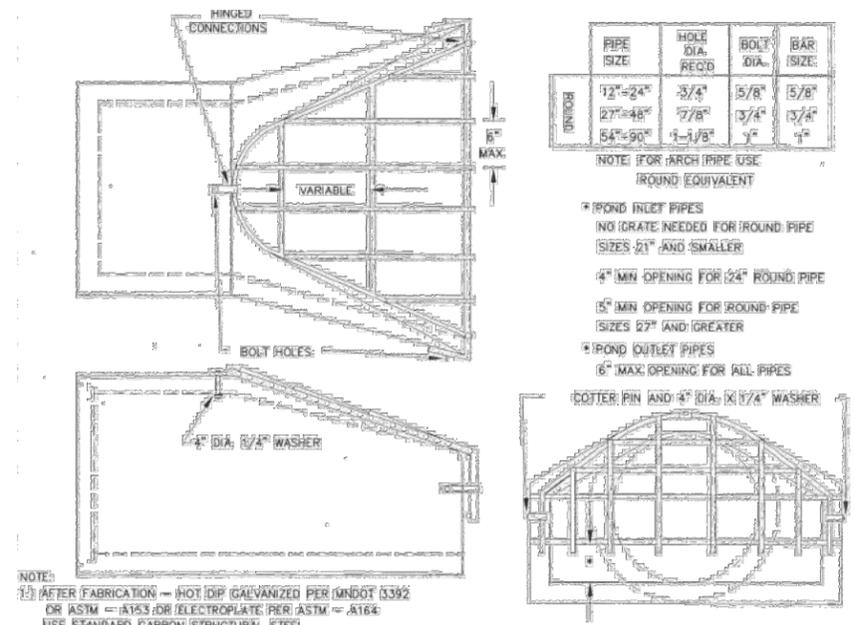
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CITY OF BROOKLYN PARK, MINNESOTA
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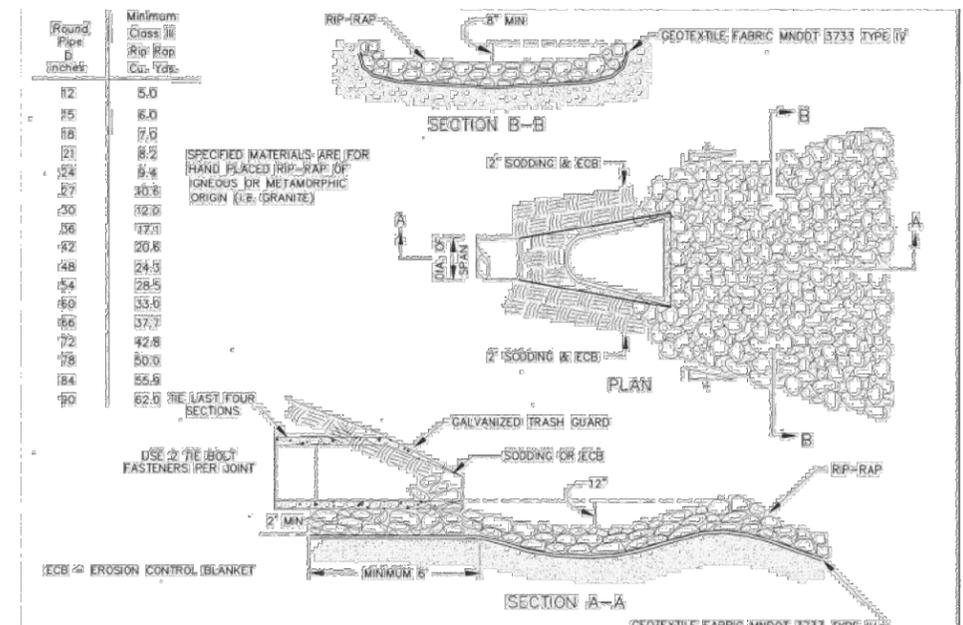
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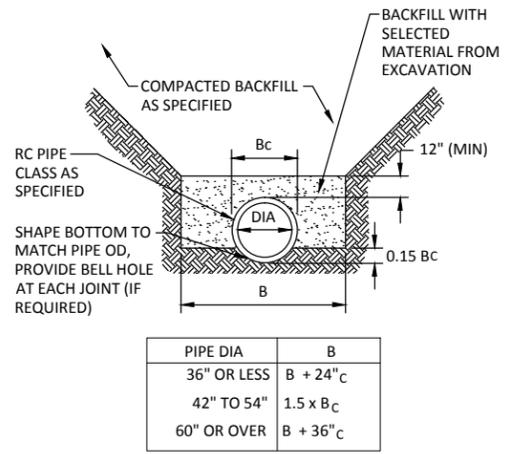
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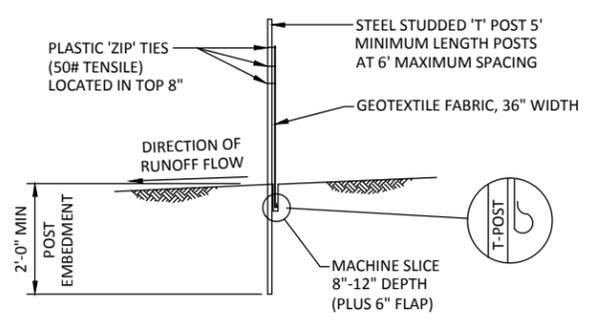
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CITY OF BROOKLYN PARK**
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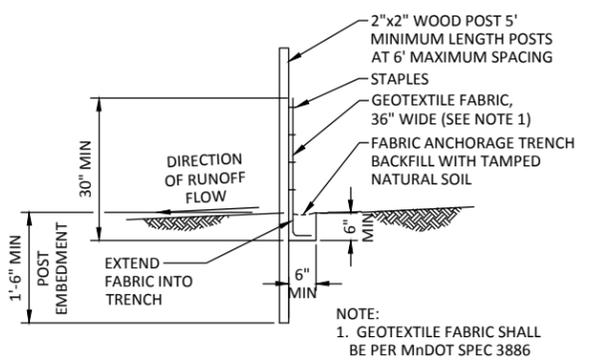
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DETAIL DRAWING S-14
CITY OF BROOKLYN PARK**
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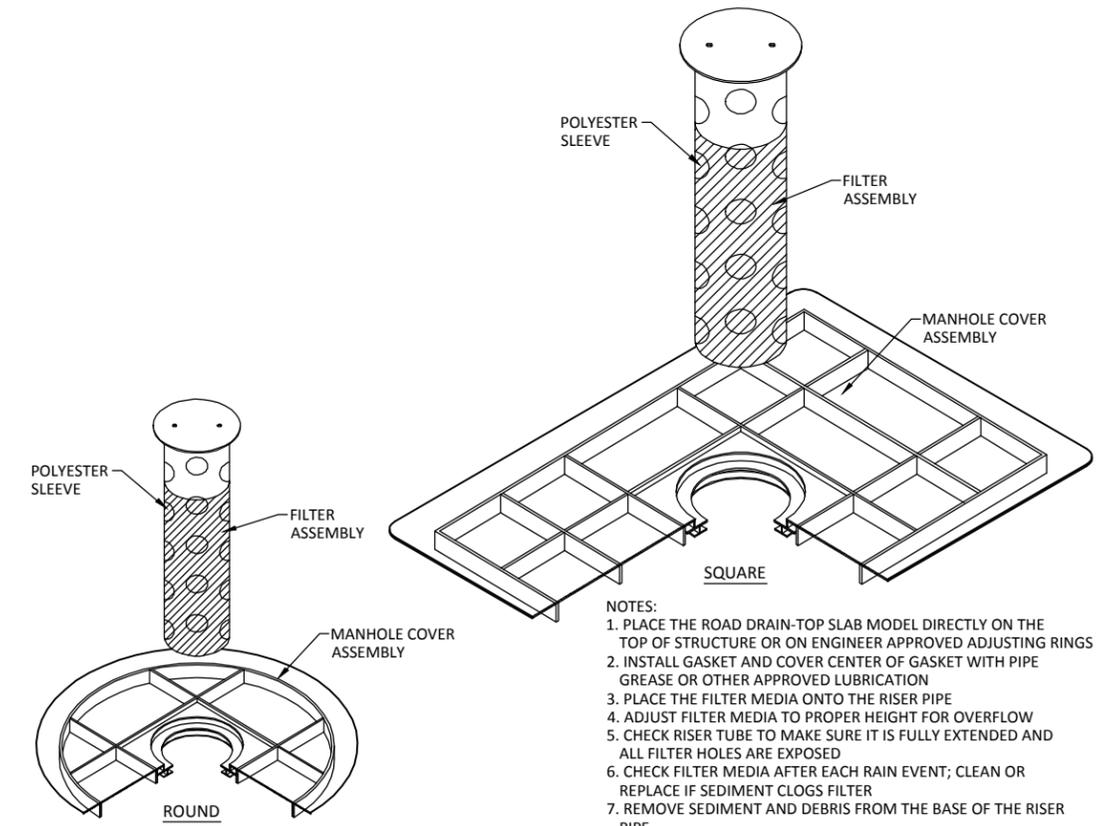
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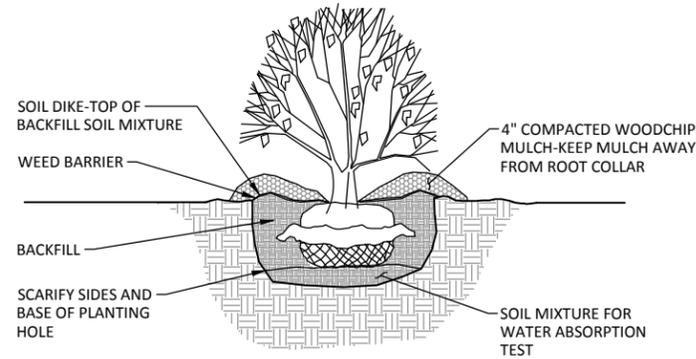
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SILT FENCE - PREASSEMBLED
NOT TO SCALE



**INLET PROTECTION
ROAD DRAIN**
NOT TO SCALE



SHRUB PLANTING
NOT TO SCALE

1. PROVIDE AND INSTALL HEALTHY PLANT MATERIALS THAT MEET ALL SPECIFICATIONS AND ARE OF THE SIZE, TYPE AND SPECIES NAMED ON THE PLANT SCHEDULE AND SHOWN ON THE PLANS.
2. DIG PLANT HOLE 1'-0" MINIMUM LARGER ON ALL SIDES THAN ROOT BALL.
3. PRIOR TO PLACING SHRUB, SCARIFY BOTTOM AND SIDES OF THE PLANTING HOLE.
4. TEST SOIL ABSORPTION. FILL HOLE PARTIALLY WITH SUPPLEMENTED SOIL MIXTURE, ADD WATER AND ALLOW TO PUDDLE AND SETTLE PRIOR TO SETTING SHRUB.
5. AFTER PUDDLING HAS SETTLED, SET SHRUB AND BACK FILL WITH SUPPLEMENTED SOIL MIXTURE.
6. WATER THOROUGHLY AND ADD BACK FILL AS NEEDED AFTER MOISTURE IS ABSORBED.
7. BUILD SOIL DIKE AROUND PERIPHERY OF SHRUB TO HOLD WATER.
8. AFTER SETTLEMENT, MULCH WITH MINIMUM 4" LAYER SHREDDED BARK, WOOD CHIPS OR AS OTHERWISE SPECIFIED. DO NOT MULCH UP AGAINST THE TRUNK.
9. REMOVE DEAD OR DAMAGED BRANCHES. RETAIN THE NATURAL FORM OF THE SHRUB.

BAG & BALL PLANTING NOTE :

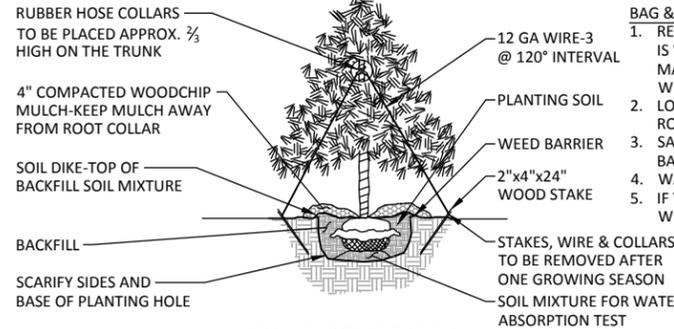
1. REMOVE WRAPPING AND ALL TIES OR STRAPS. IF ROOT BALL IS WRAPPED IN BURLAP THE LOWER 1/2 PORTION OF THE FABRIC MAY BE LEFT AT THE BOTTOM OF THE HOLE. SYNTHETIC WRAP MUST BE REMOVED AND PROPERLY DISPOSED.
2. LOOSEN ROOTS TO ENSURE THEY ARE NOT GIRDLING THE ROOT BALL.
3. SALVAGE AND REUSE ALL SOIL THAT CAME WITH THE ROOT BALL.
4. IF ROOT BALL IS EXTREMELY DRY WATER IT PRIOR TO PLACING IT IN THE HOLE.
5. IF SHRUB IS CONTAINER GROWN, SALVAGE ALL SOIL AND MIX WITH SUPPLEMENTED SOIL FOR BACK FILL.

BARE ROOT PLANTING NOTE :
IF BARE ROOT MATERIAL IS SPECIFIED THESE ADDITIONAL REQUIREMENTS MUST BE MET:

1. ROOTS MUST BE SOAKED OVERNIGHT THE NIGHT BEFORE PLANTING.
2. ROOTS MUST BE PROTECTED FROM DRYING OUT DURING THE INSTALLATION PROCESS.
3. ALL DAMAGED, DISEASED OR DESIGNATED ROOTS AND ROOT ENDS MUST BE CLEANLY PRUNED. SHRUB SHALL NOT HAVE GIRDLING ROOTS.

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4. TEST SOIL ABSORPTION.
5. FILL HOLE PARTIALLY WITH SUPPLEMENTED SOIL MIXTURE, ADD WATER AND ALLOW TO PUDDLE AND SETTLE PRIOR TO SETTING TREE.

6. AFTER PUDDLING HAS SETTLED, SET TREE AND BACK FILL WITH SUPPLEMENTED SOIL MIXTURE.
7. WATER THOROUGHLY AND ADD BACK FILL AS NEEDED AFTER MOISTURE IS ABSORBED.
8. BUILD SOIL DIKE AROUND PERIPHERY OF TREE TO HOLD WATER.
9. AFTER SETTLEMENT, MULCH WITH MINIMUM 4" LAYER SHREDDED BARK, WOOD CHIPS OR AS OTHERWISE SPECIFIED. DO NOT PLACE MULCH OVER THE ROOT COLLAR.
10. REMOVE DEAD OR DAMAGED BRANCHES RETAINING THE NATURAL FORM OF THE TREE.

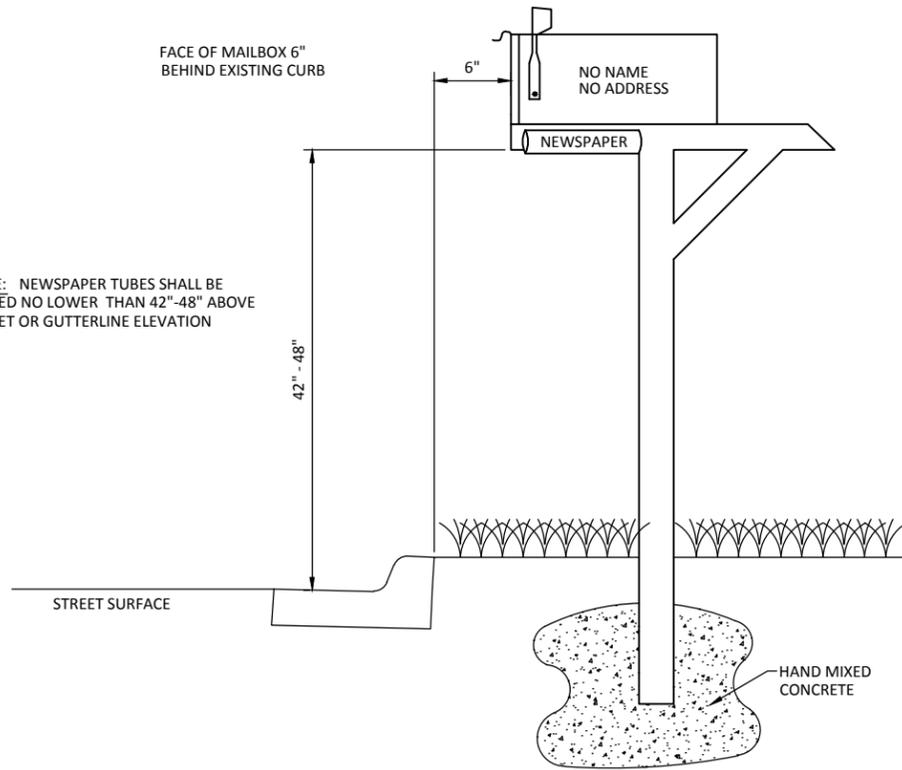


CONIFEROUS TREE PLANTING
NOT TO SCALE

- BAG & BALL PLANTING NOTE :**
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 5. IF TREE IS CONTAINER GROWN, SALVAGE ALL SOIL AND MIX WITH SUPPLEMENTED SOIL FOR BACK FILL.

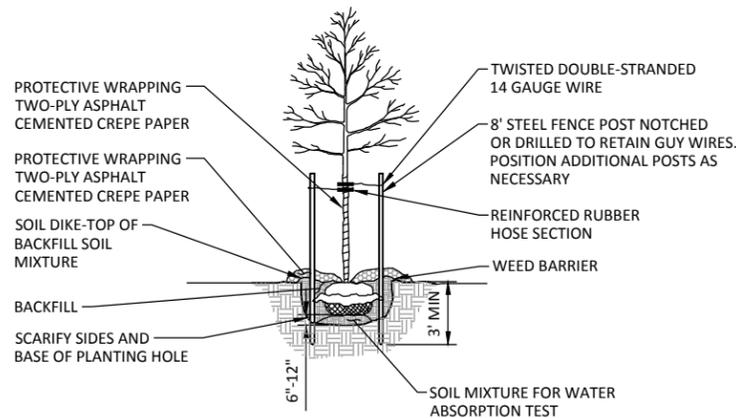
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MAILBOX INSTALLATION
NOT TO SCALE

NOTE: NEWSPAPER TUBES SHALL BE PLACED NO LOWER THAN 42"-48" ABOVE STREET OR GUTTERLINE ELEVATION



DECIDUOUS TREE PLANTING
NOT TO SCALE

BAG & BALL PLANTING NOTE :

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NOTE: DETAILS ARE NOT TO SCALE



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Joshua Eckstein
JOSHUA ECKSTEIN
LIC. NO. 48224 DATE 01/15/2016

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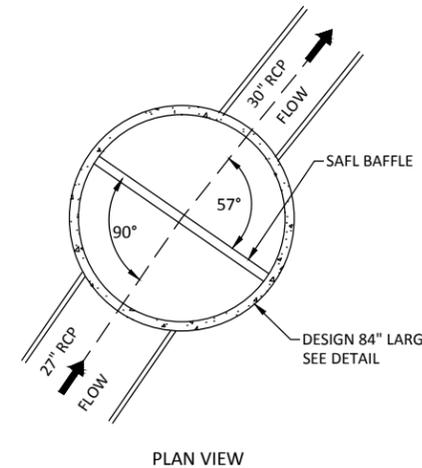
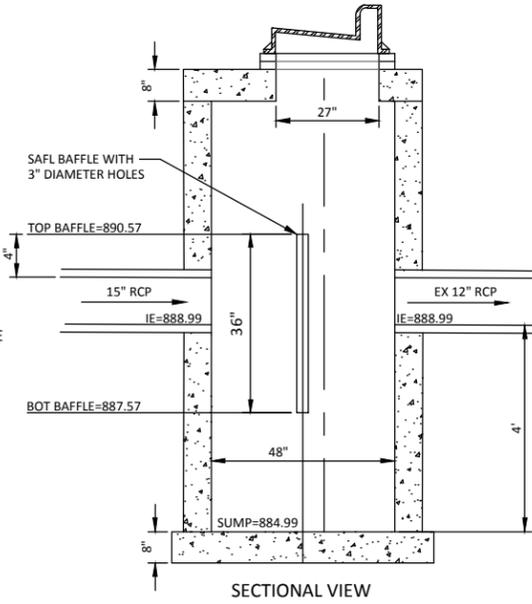
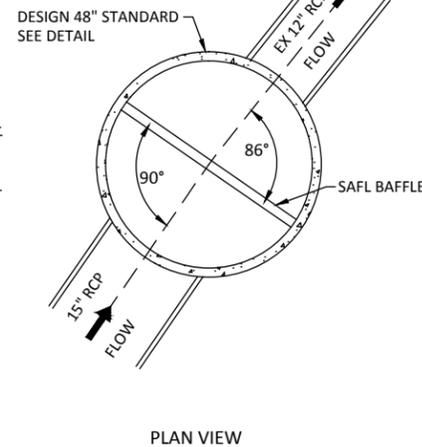
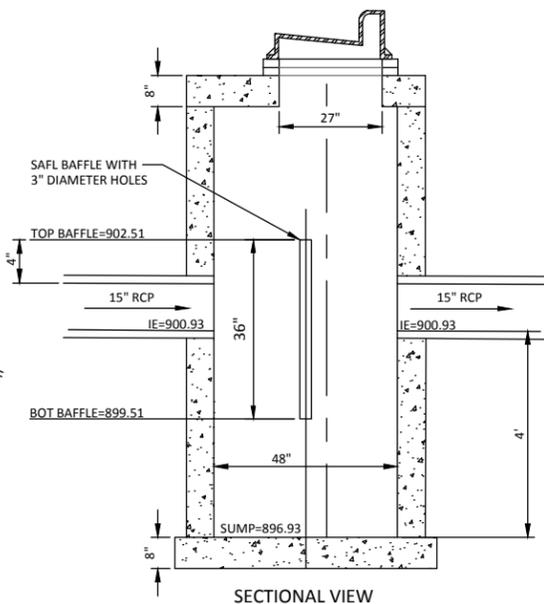
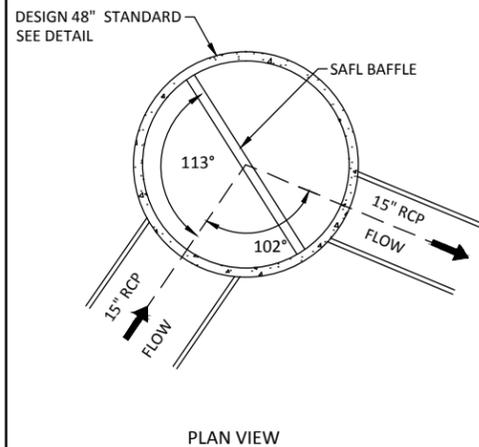


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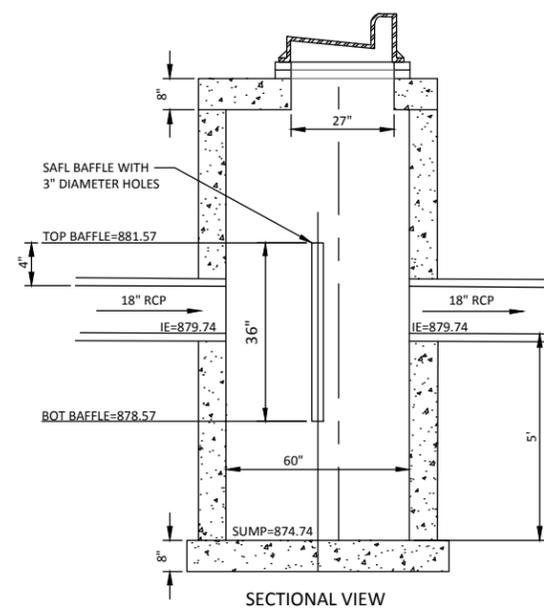
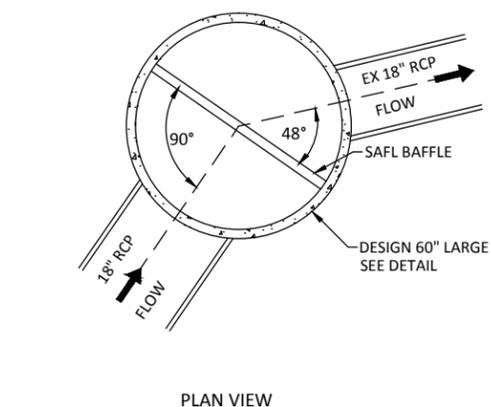
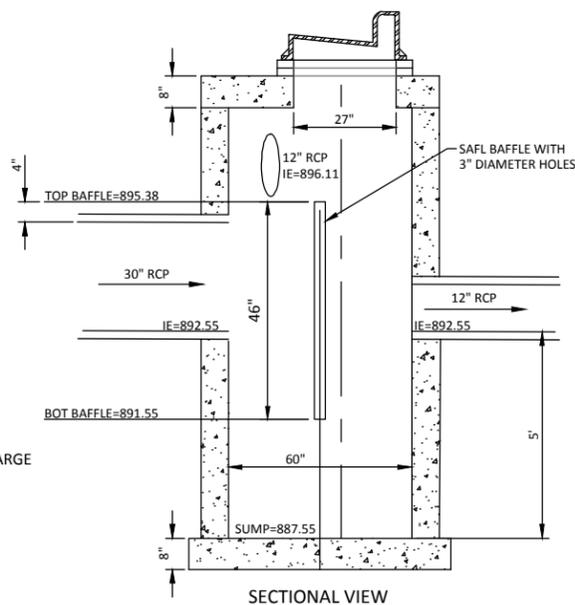
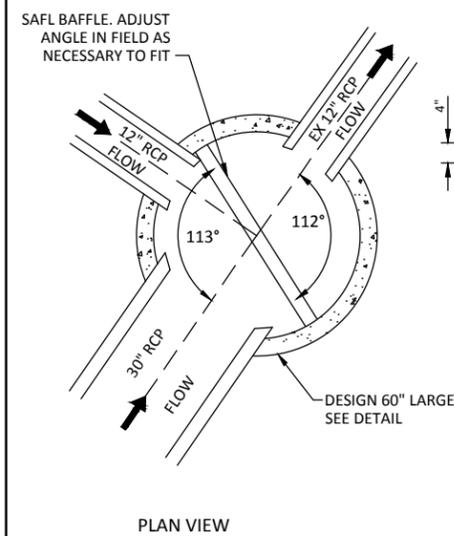
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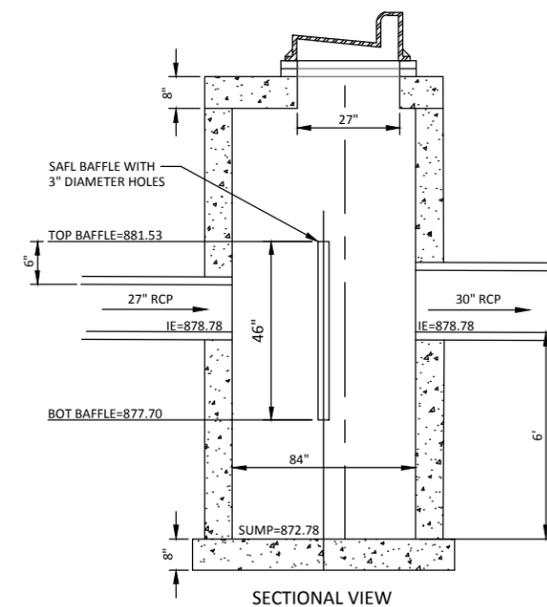
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SUMP STRUCTURE 116 ALIGNMENT DETAILS
NOT TO SCALE



SUMP STRUCTURE 123 ALIGNMENT DETAILS
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NOTE: DETAILS ARE NOT TO SCALE

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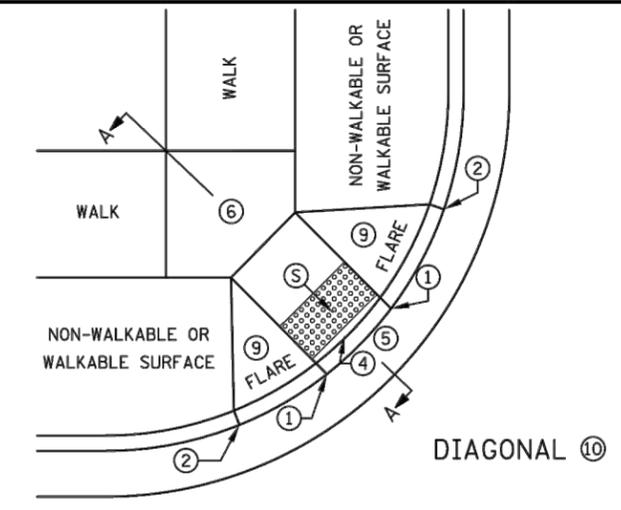
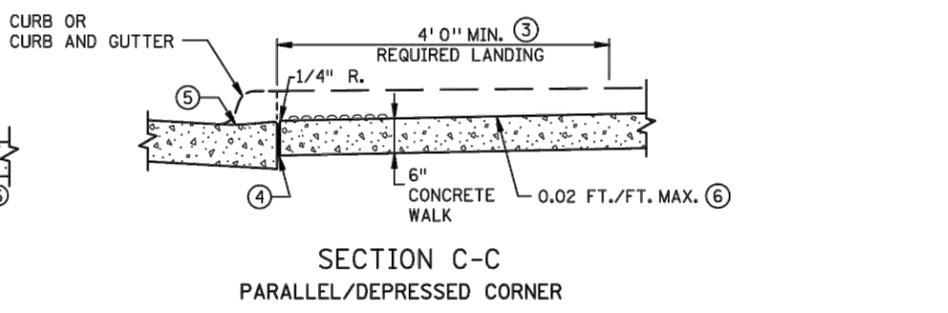
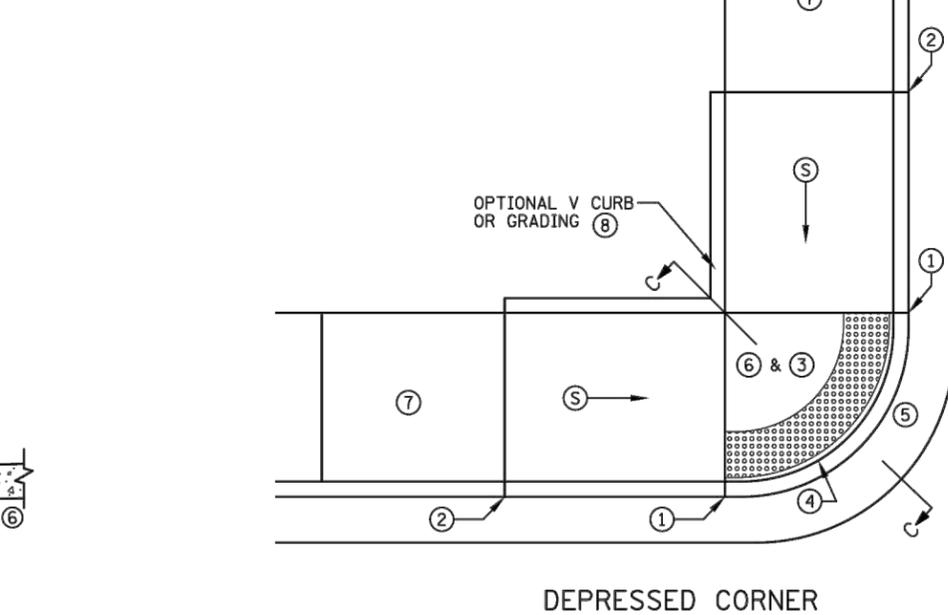
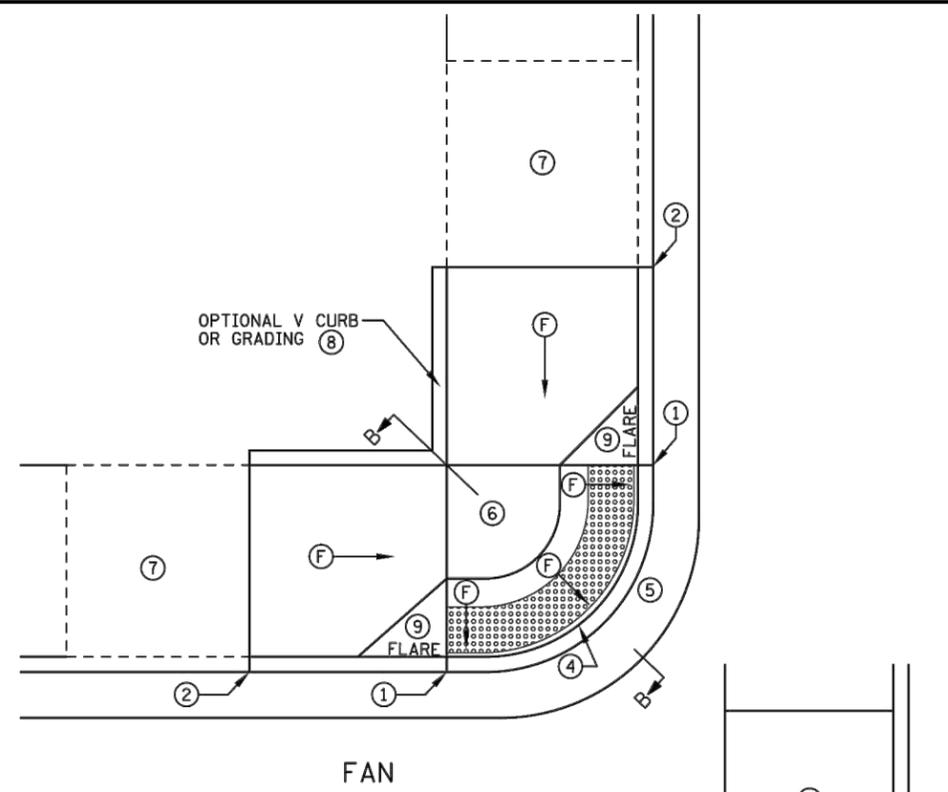
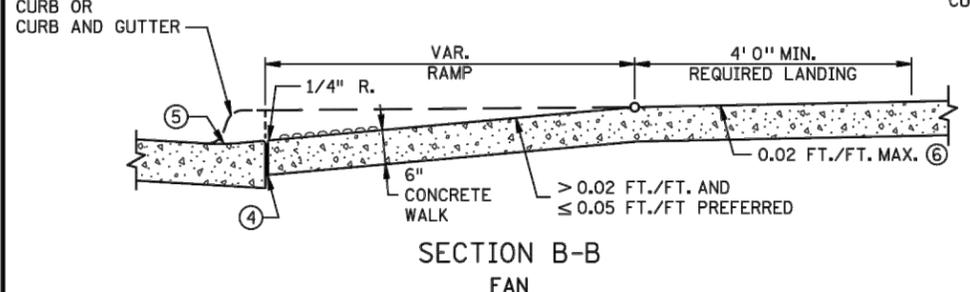
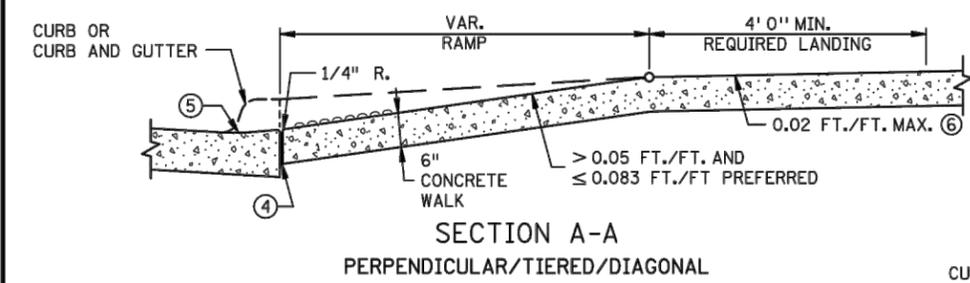
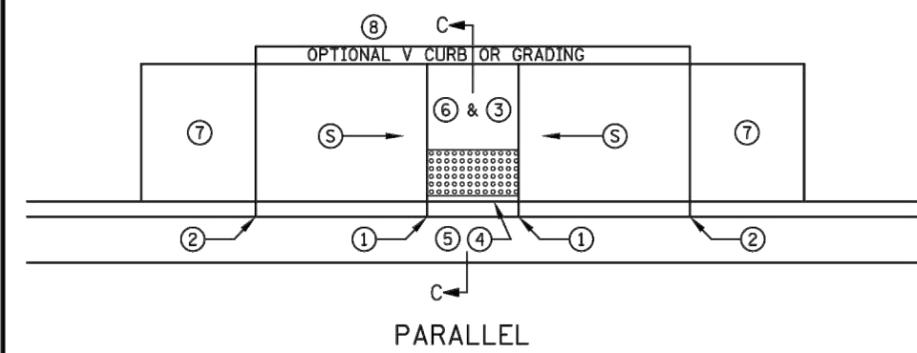
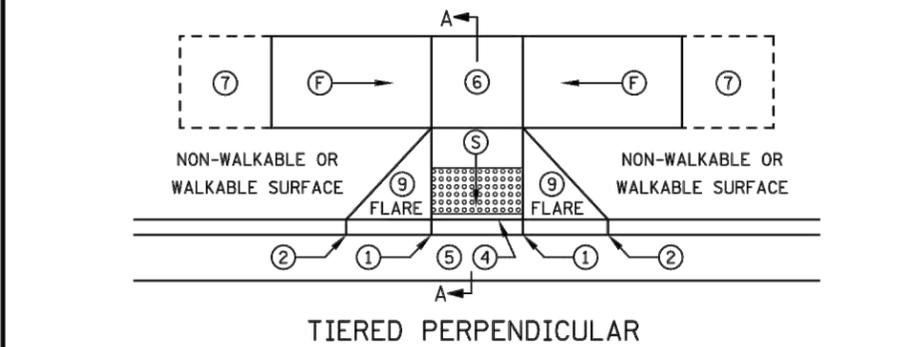
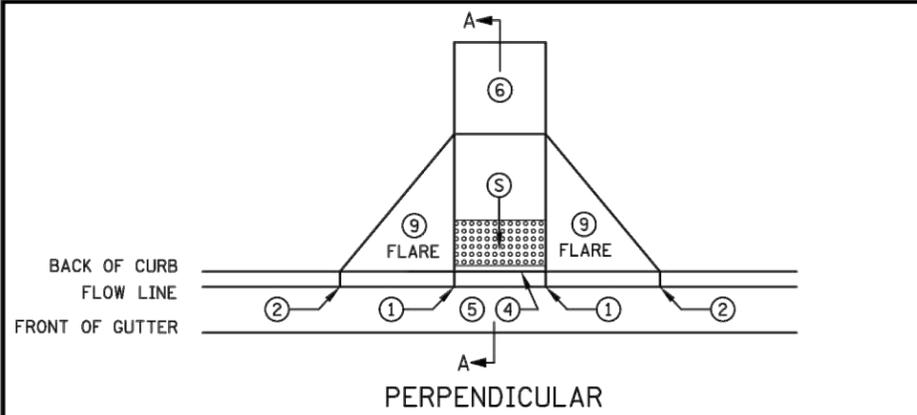
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108



- NOTES:
- LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.
 - INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE.
 - SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.
 - CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS.
 - ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL.
 - TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS MAY BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 5 WHEN LANDINGS ARE CAST SEPARATELY.
 - ALL SLOPES ARE ABSOLUTE, RATHER THAN RELATIVE TO SIDEWALK/ROADWAY GRADES.
 - TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.
 - 4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MINIMUM OF 24" IN THE PATH OF TRAVEL. SHARED USE PATHS SHALL HAVE DETECTABLE WARNING ACROSS THE ENTIRE WIDTH OF PATH WHEN THE PATH CROSSES A ROAD.
 - SEE STANDARD PLATE 7038 AND SHEET 4 OF 5 FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.
 - ① 0" CURB HEIGHT.
 - ② FULL CURB HEIGHT.
 - ③ DETECTABLE WARNINGS MAY BE PART OF 4' X 4' LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.
 - ④ 1/2" PREFORMED JOINT FILLER MATERIAL AASHTO M 213. JOINT FILLER SHALL BE PLACED FLUSH WITH THE BACK OF CURB AND ADJACENT SIDEWALK. JOINT SHALL BE FREE OF DEBRIS. RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.
 - ⑤ SEE PEDESTRIAN ACCESS ROUTE CURB AND GUTTER DETAIL FOR INFORMATION ON CONSTRUCTING CURB AND GUTTER AT CURB OPENINGS. SEE SHEET NO. 3 OF 5.
 - ⑥ 4' BY 4' MIN. LANDING WITH MAX. 2.0% SLOPE IN ALL DIRECTIONS.
 - ⑦ IF LONGITUDINAL SLOPE IS GREATER THAN 5.0%, 4' X 4' MIN. LANDING WITH MAX 2.0% SLOPE IN ALL DIRECTIONS REQUIRED.
 - ⑧ V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. SEE SHEET 5 OF 5.
 - ⑨ SEE SHEET 4 OF 5, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.
 - ⑩ DIAGONAL RAMPS SHOULD ONLY BE USED AFTER ALL OTHER CURB RAMP TYPES HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.

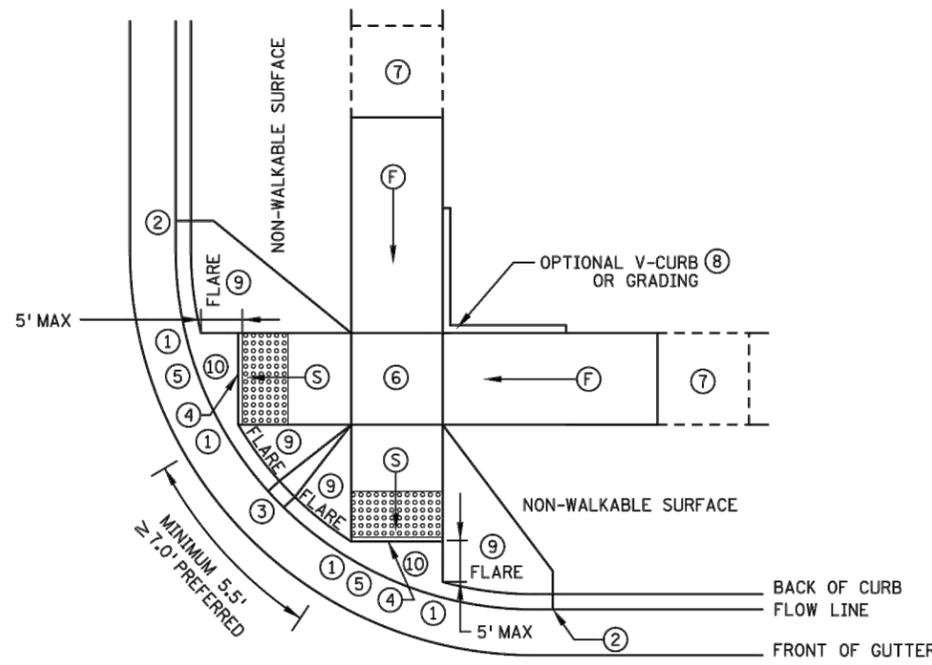
LEGEND	
THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.	
(S)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%
(F)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%

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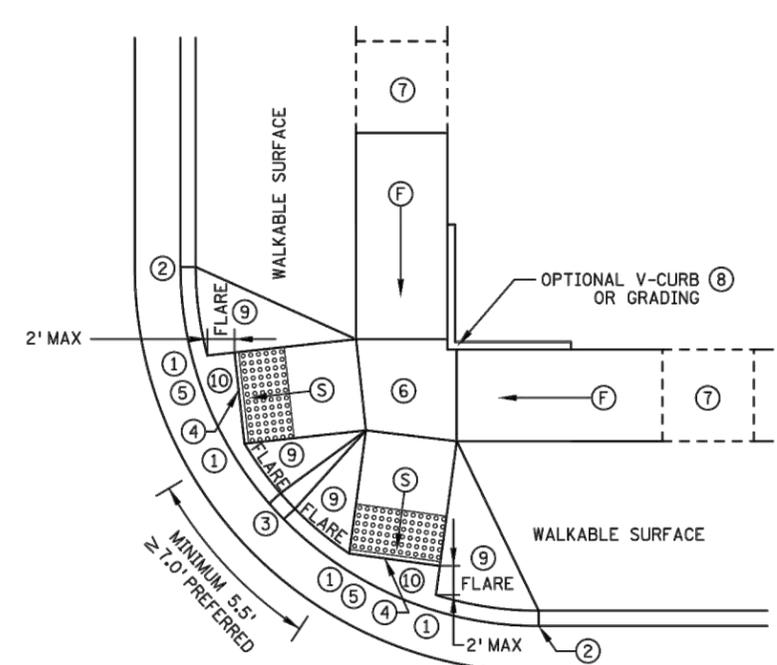
REVISIONS:
APPROVED: 8-6-2014
[Signature]
OPERATIONS ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION
REVISED:
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STATE DESIGN ENGINEER 8-6-2014

PEDESTRIAN CURB RAMP DETAILS
STANDARD PLAN 5-297.250 1.12 OF 108

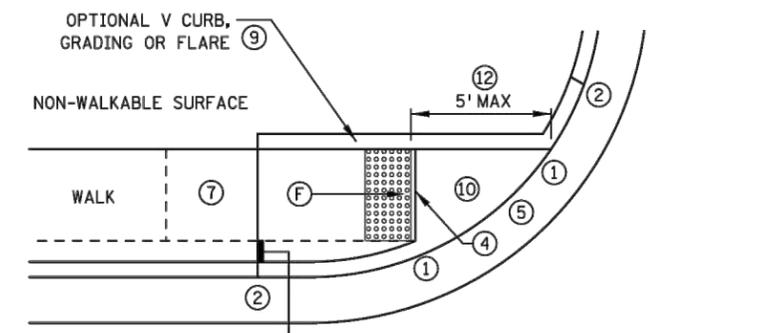


ADJACENT TO NON-WALKABLE SURFACE

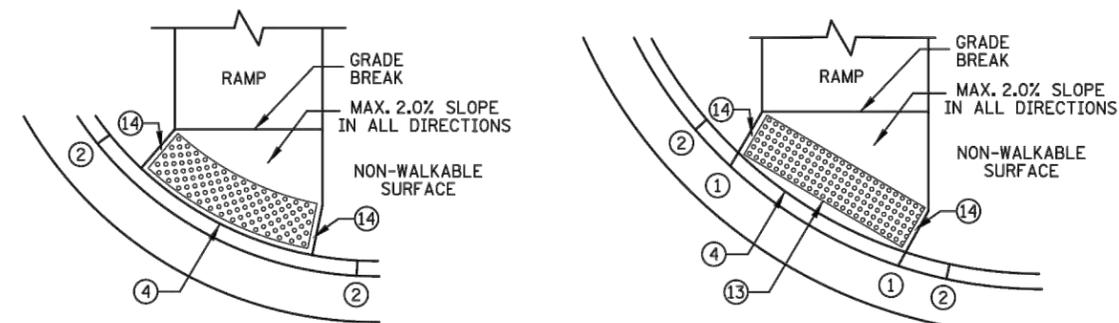


ADJACENT TO WALKABLE SURFACE

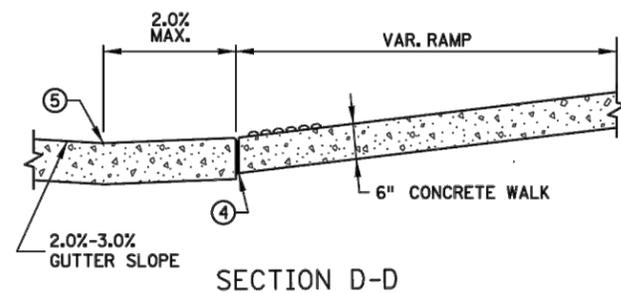
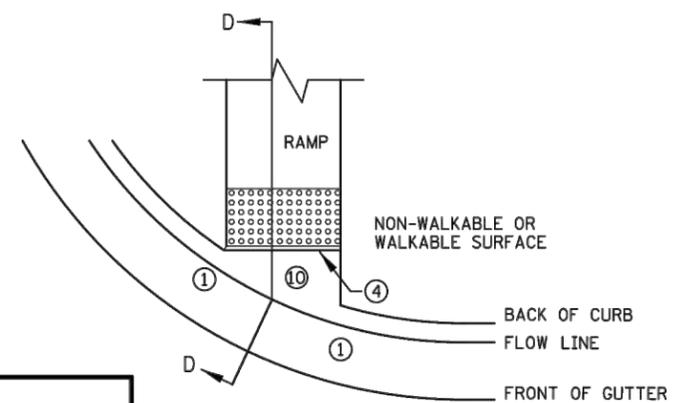
COMBINED DIRECTIONAL 15



ONE-WAY DIRECTIONAL



DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED



SECTION D-D

NOTES:

- LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.
- INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE.
- SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.
- CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS.
- ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL.
- TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS MAY BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 5 WHEN LANDINGS ARE CAST SEPARATELY.
- ALL SLOPES ARE ABSOLUTE, RATHER THAN RELATIVE TO SIDEWALK/ROADWAY GRADES.
- TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.
- 4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MINIMUM OF 24" IN THE PATH OF TRAVEL. SHARED USE PATHS SHALL HAVE DETECTABLE WARNING ACROSS THE ENTIRE WIDTH OF PATH WHEN THE PATH CROSSES A ROAD.
- SEE STANDARD PLATE 7038 AND SHEET 4 OF 5 FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.

- 1 0" CURB HEIGHT.
- 2 FULL CURB HEIGHT.
- 3 3" MINIMUM CURB HEIGHT, 4" PREFERRED.
- 4 1/2" PREFORMED JOINT FILLER MATERIAL AASHTO M 213. JOINT FILLER SHALL BE PLACED FLUSH WITH THE BACK OF CURB AND ADJACENT SIDEWALK. JOINT SHALL BE FREE OF DEBRIS. RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MIN. TO 6" MAX. FROM THE BACK OF CURB.
- 5 SEE PEDESTRIAN ACCESS ROUTE CURB AND GUTTER DETAIL FOR INFORMATION ON CONSTRUCTING CURB AND GUTTER AT CURB OPENINGS. SEE SHEET NO. 3 OF 5.
- 6 4' BY 4' MIN. LANDING WITH MAX. 2.0% SLOPE IN ALL DIRECTIONS.
- 7 IF LONGITUDINAL SLOPE IS GREATER THAN 5.0%, 4' X 4' MIN. LANDING WITH MAX 2.0% SLOPE IN ALL DIRECTIONS REQUIRED.
- 8 V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.
- 9 SEE SHEET 4 OF 5, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.
- 10 MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE. SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.
- 11 TO BE USED FOR ALL DIRECTIONAL RAMPS.
- 12 PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.
- 13 RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.
- 14 WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
- 15 FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 3" FROM BACK OF CURB. WHETHER A SURFACE IS WALKABLE OR NOT SHALL BE DETERMINED BY THE ENGINEER

LEGEND	
THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.	
S	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%
F	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%

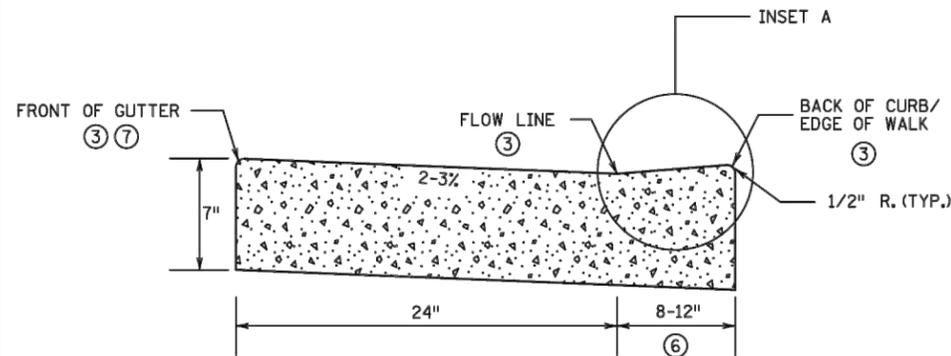
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REVISIONS:
 APPROVED: 8-6-2014
 OPERATIONS ENGINEER

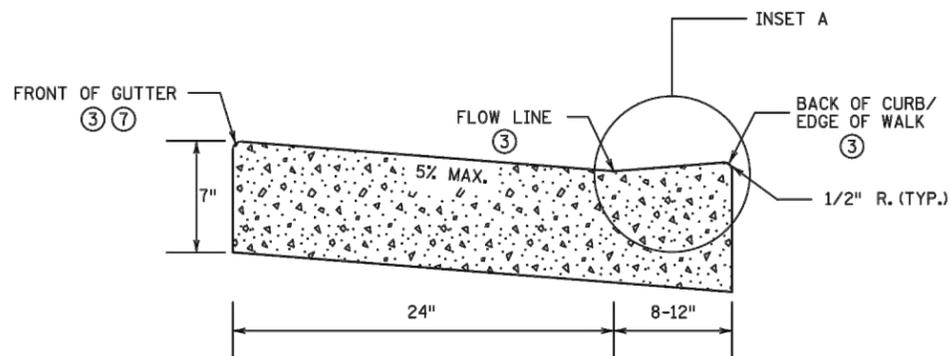
CURB FOR DIRECTIONAL RAMPS 11

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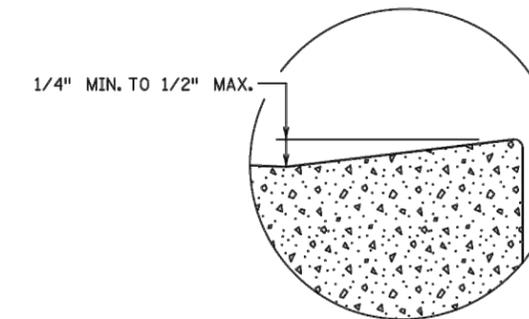
PEDESTRIAN CURB RAMP DETAILS
 STANDARD PLAN 5-297.250
 1.13 OF 108



NON PERPENDICULAR ①

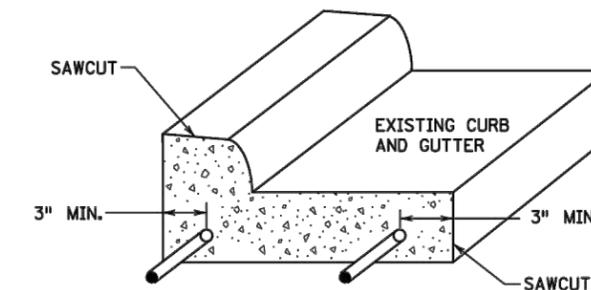
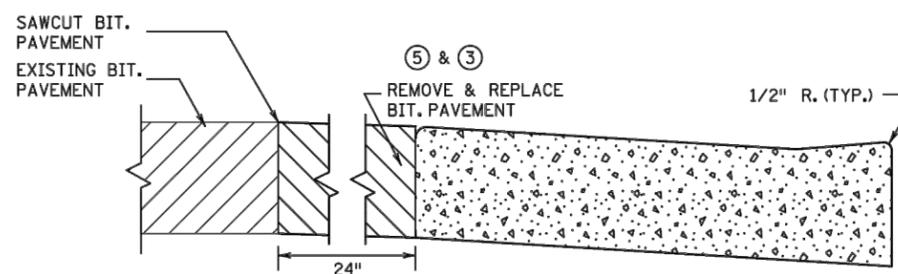
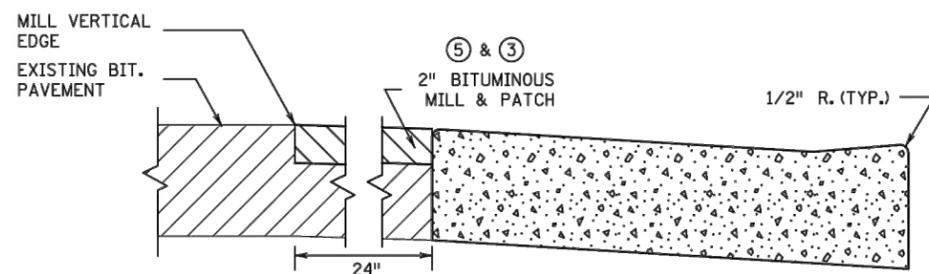


PERPENDICULAR ②

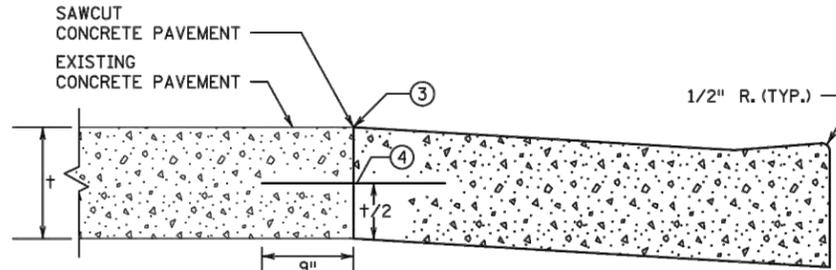
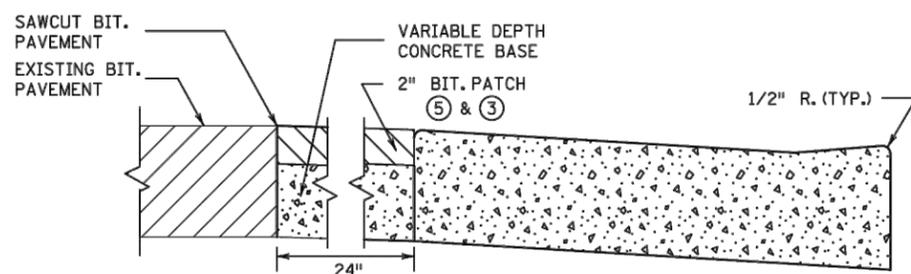


INSET A

PEDESTRIAN ACCESS ROUTE
CURB & GUTTER DETAIL



CURB AND GUTTER
REINFORCEMENT ⑧
FOR USE ON CURB RAMP RETROFITS



PAVEMENT TREATMENT OPTIONS
IN FRONT OF CURB & GUTTER
FOR USE ON CURB RAMP RETROFITS

NOTES:

POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM.

NO PONDING SHALL BE PRESENT IN THE PAR.

ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.

① FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS, DEPRESSED CORNERS, & ONE WAY AND COMBINED DIRECTIONALS.

② FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMP.

③ THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4\".

④ DRILL AND GROUT NO. 4 EPOXY-COATED 18\" LONG TIE BARS AT 30\" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT.

⑤ ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.

⑥ VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS.

⑦ TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. PAR GUTTER SHALL NOT BE OVERLAID.

⑧ WHERE PLAN SPECIFIES, DRILL AND GROUT 2 - NO. 4 X 12\" LONG REINFORCEMENT BARS (EPOXY COATED).

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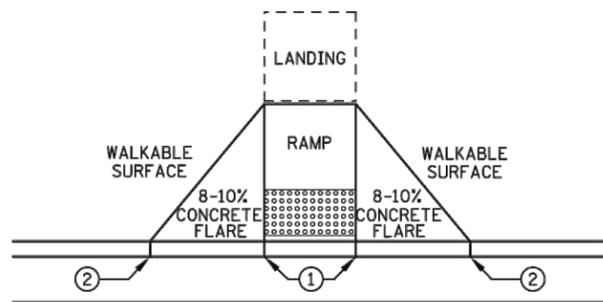
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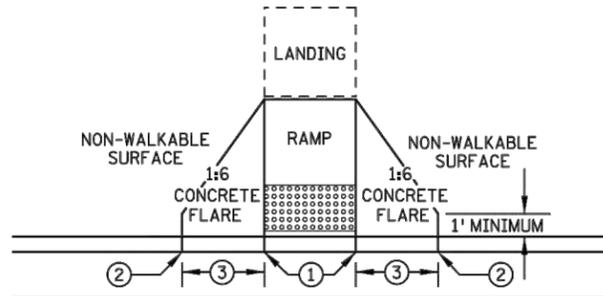
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PEDESTRIAN CURB RAMP DETAILS	
STANDARD PLAN 5-297.250	1.14 OF 108

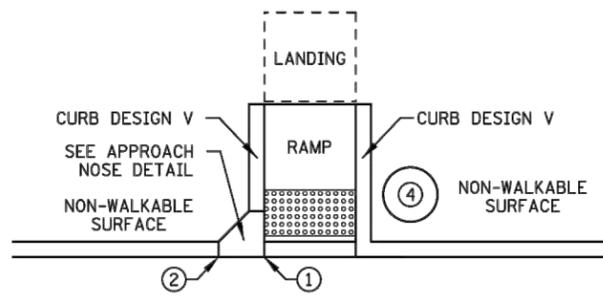
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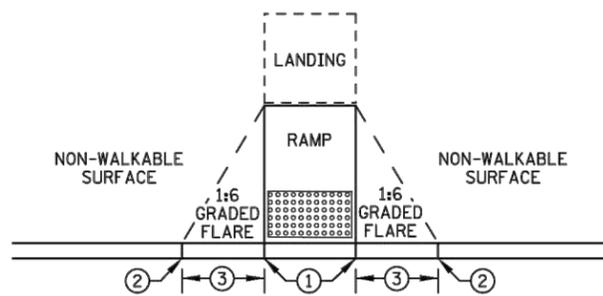
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

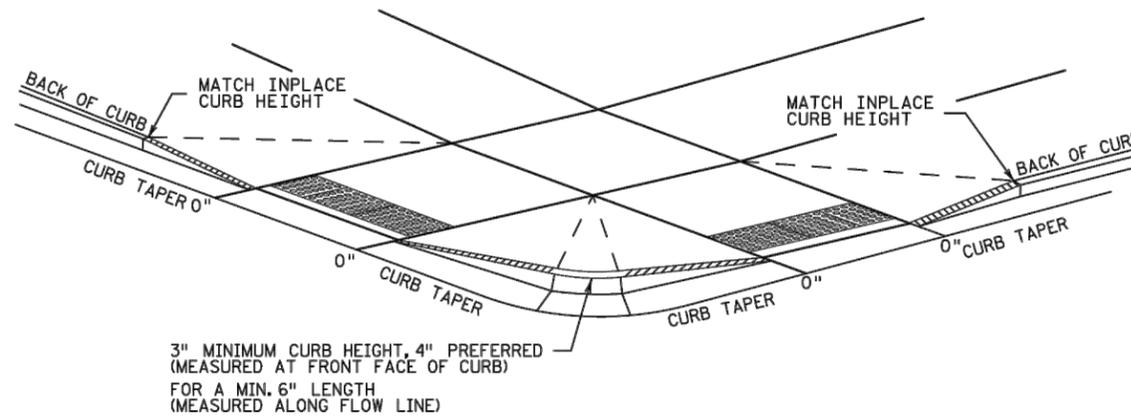


RETURNED CURB

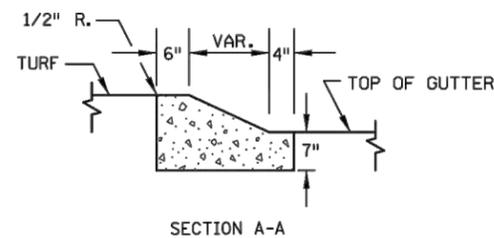
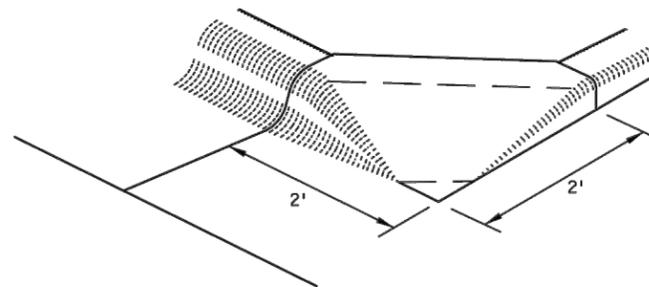


GRADED FLARES

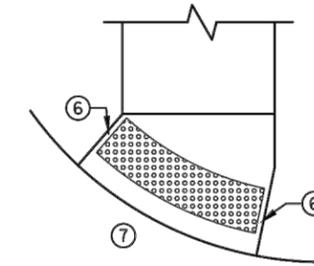
TYPICAL SIDE TREATMENT OPTIONS ⑤



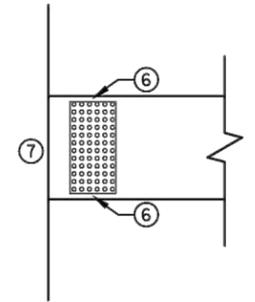
DETECTABLE EDGE WITH
CURB AND GUTTER ⑧



APPROACH NOSE DETAIL
FOR DOWNSTREAM SIDE OF TRAFFIC



RADIAL DETECTABLE WARNING



RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER

NOTES:

SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING. WHETHER A SURFACE IS WALKABLE OR NOT SHALL BE DETERMINED BY THE ENGINEER. CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.

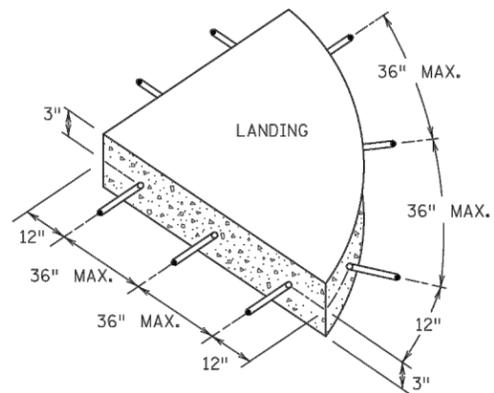
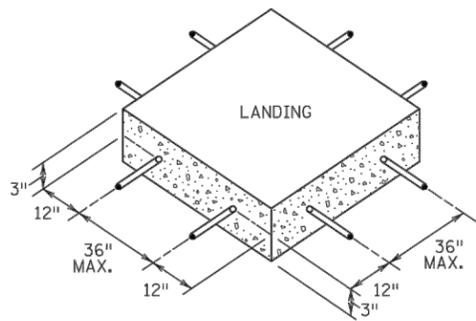
- ① 0" CURB HEIGHT.
- ② FULL CURB HEIGHT.
- ③ 2' - 3' FLARE.
- ④ IMMOVABLE OBJECT OR OBSTRUCTION.
- ⑤ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED ON ALL RAMPS AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.
- ⑥ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
- ⑦ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF ROADWAY TO PROVIDE VISUAL CONTRAST.
- ⑧ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.

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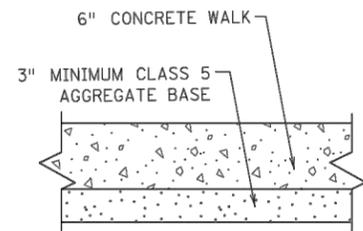
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APPROVED: 8-6-2014
[Signature]
OPERATIONS ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION
REVISOR:
[Signature]
STATE DESIGN ENGINEER
APPROVED:
8-6-2014

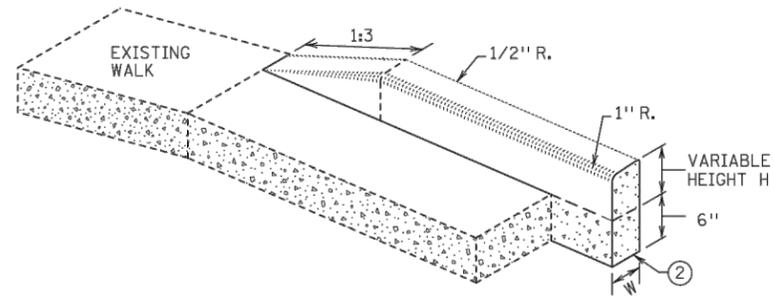
PEDESTRIAN CURB RAMP DETAILS
STANDARD PLAN 5-297.250
1.15 OF 108



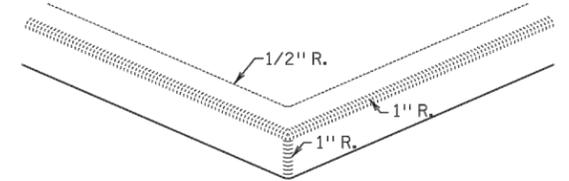
SIDEWALK REINFORCEMENT ⑥ ⑦



TYPICAL SIDEWALK SECTION WITHIN INTERSECTION CORNER

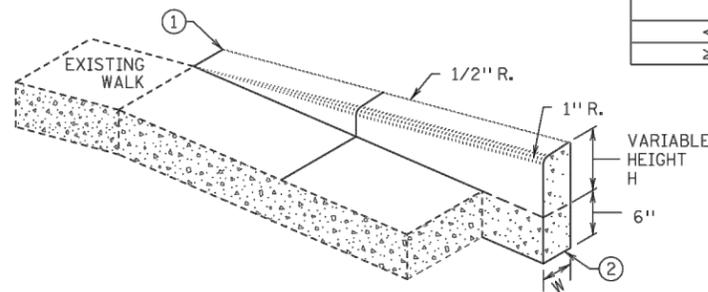


V CURB ADJACENT TO LANDSCAPE
CURB WITHIN SIDEWALK LIMITS

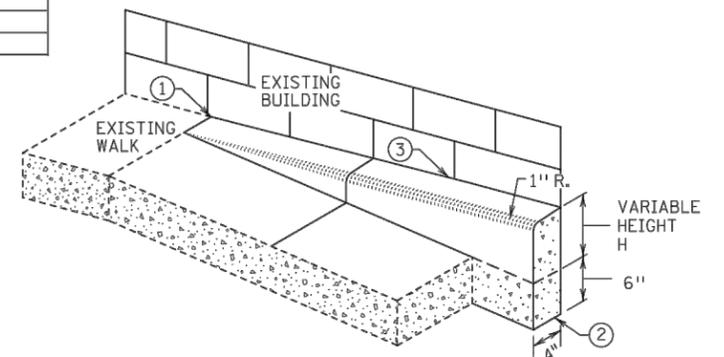


V CURB INTERSECTION

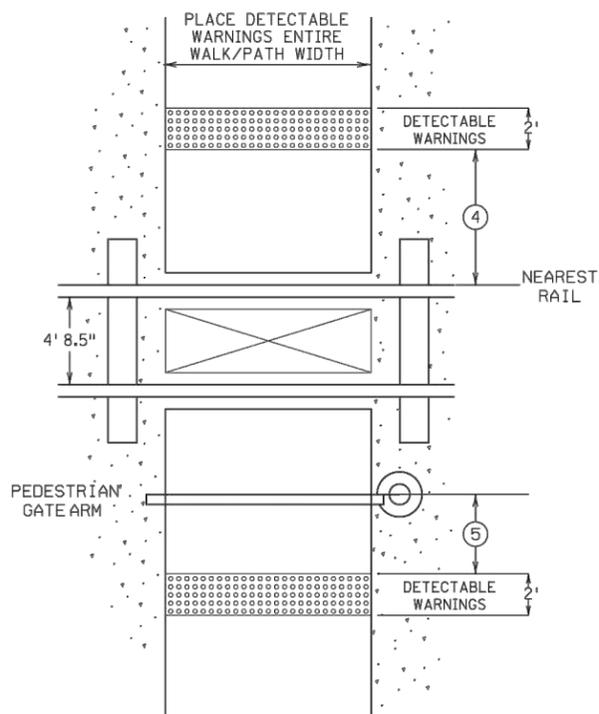
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
< 6"	4"
≥ 6"	6"



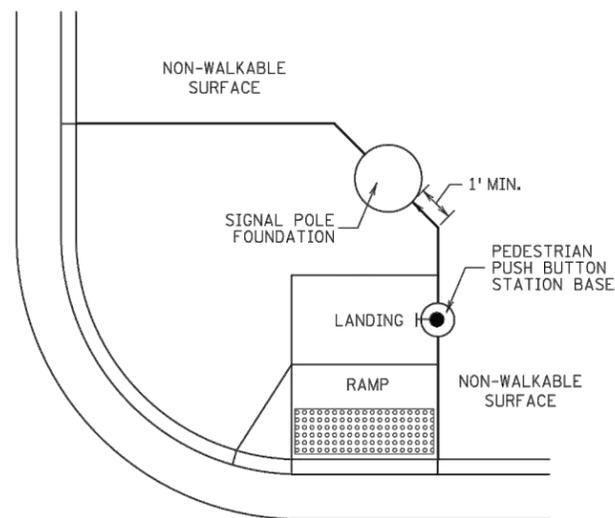
V CURB ADJACENT TO LANDSCAPE
CURB OUTSIDE SIDEWALK LIMITS



V CURB ADJACENT TO BUILDING
OR BARRIER



RAILROAD CROSSING
PLAN VIEW



CONCRETE WALK EDGES ADJACENT
TO CONCRETE STRUCTURES

NOTES:

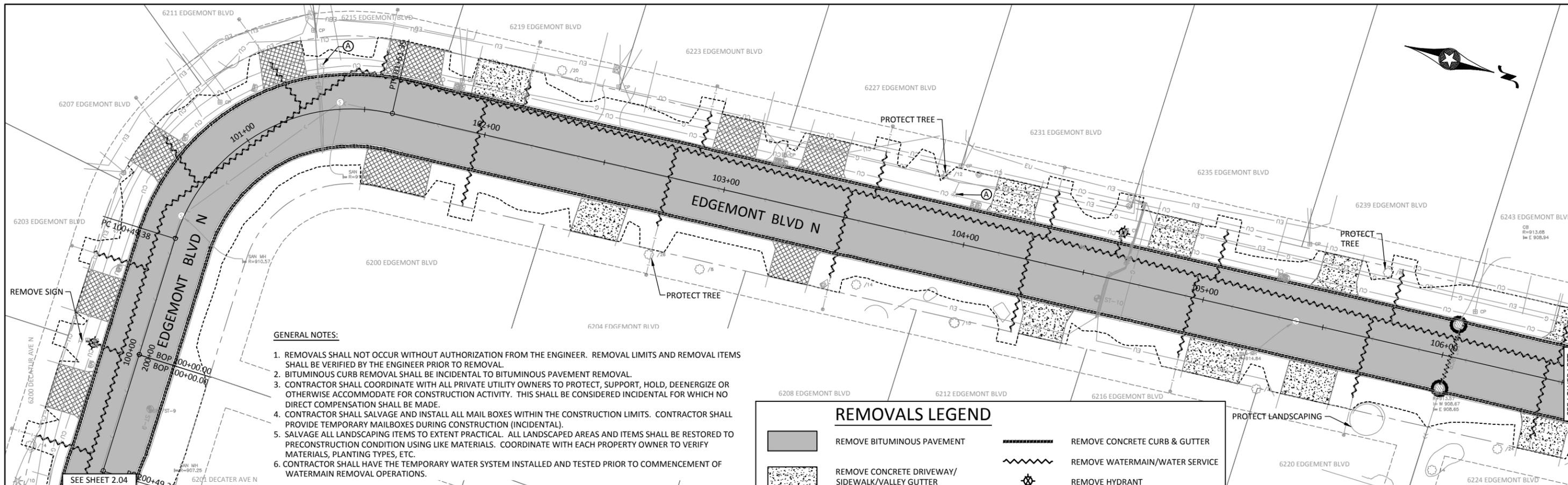
- ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.
- WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING PAVEMENT IS PREFERRED.
- V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.
- V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.
- ① END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.
- ② ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.
- ③ EDGE BETWEEN NEW V CURB AND INPLACE STRUCTURE SHALL BE SEALED AND BOND BREAKER SHALL BE USED BETWEEN EXISTING STRUCTURE AND PLACED V-CURB.
- ④ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.
- ⑤ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM.
- ⑥ WHEN PLAN SPECIFIES, DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS AT 36" MAX. CENTER TO CENTER (EPOXY COATED).
- ⑦ TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS MAY BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET WHEN LANDINGS ARE CAST SEPARATELY.

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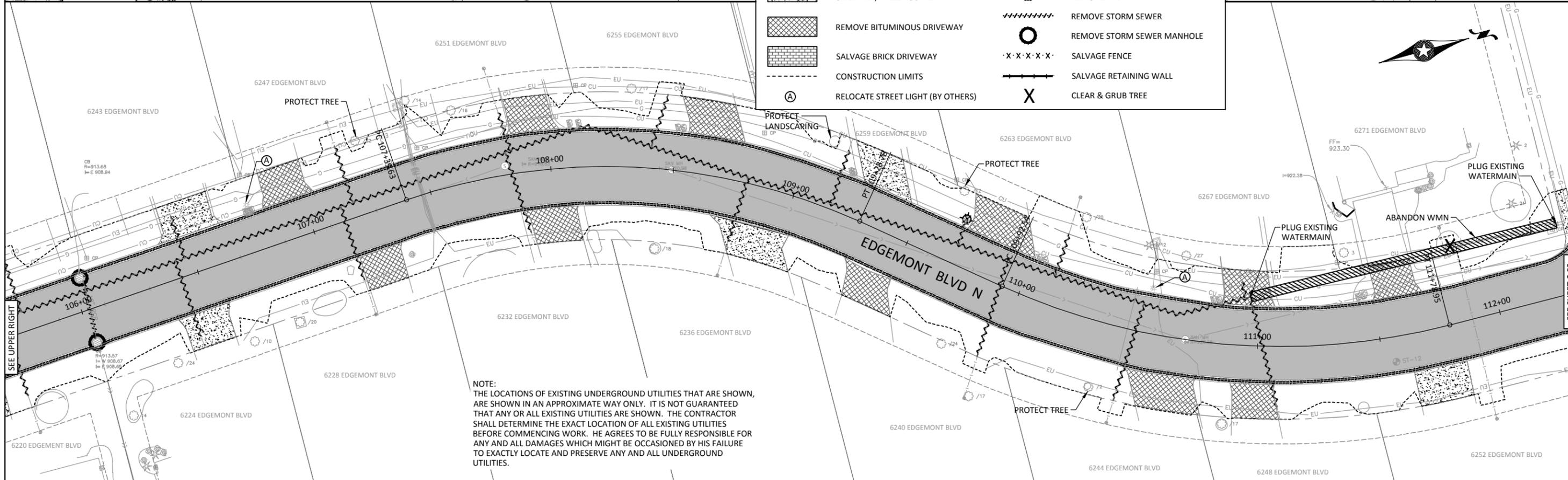
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APPROVED: 2-9-2015
[Signature]
OPERATIONS ENGINEER

MINNESOTA
DEPARTMENT OF TRANSPORTATION
REVISOR:
[Signature]
APPROVED:
2-9-2015
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS
STANDARD PLAN 5-297.250
1.16 OF 108



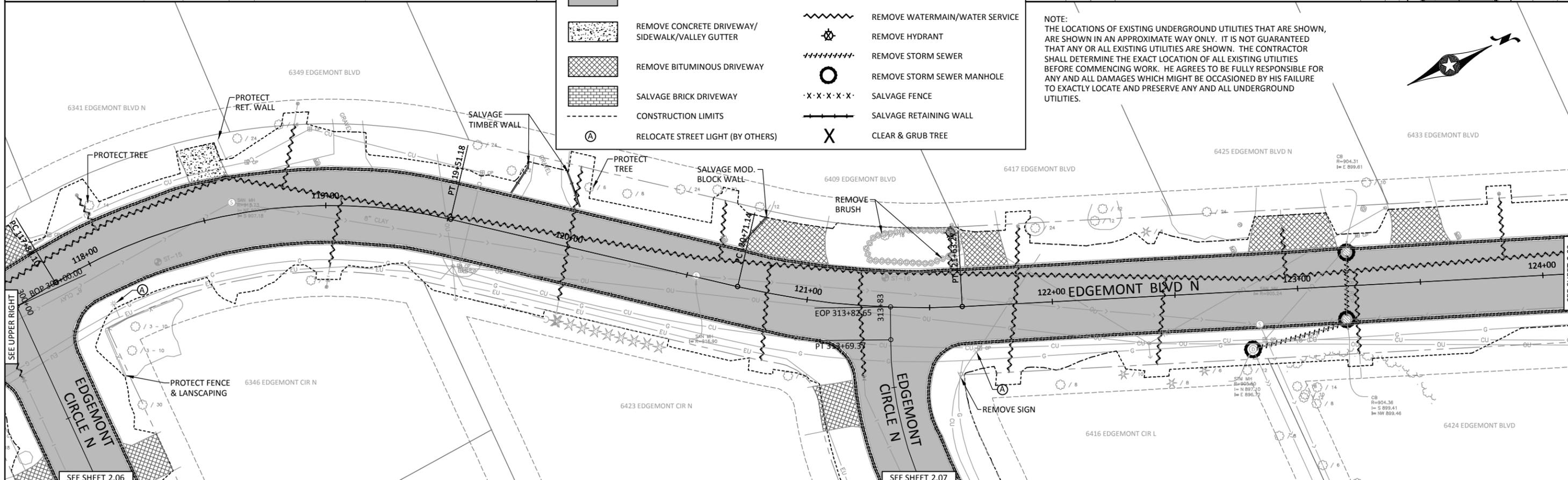
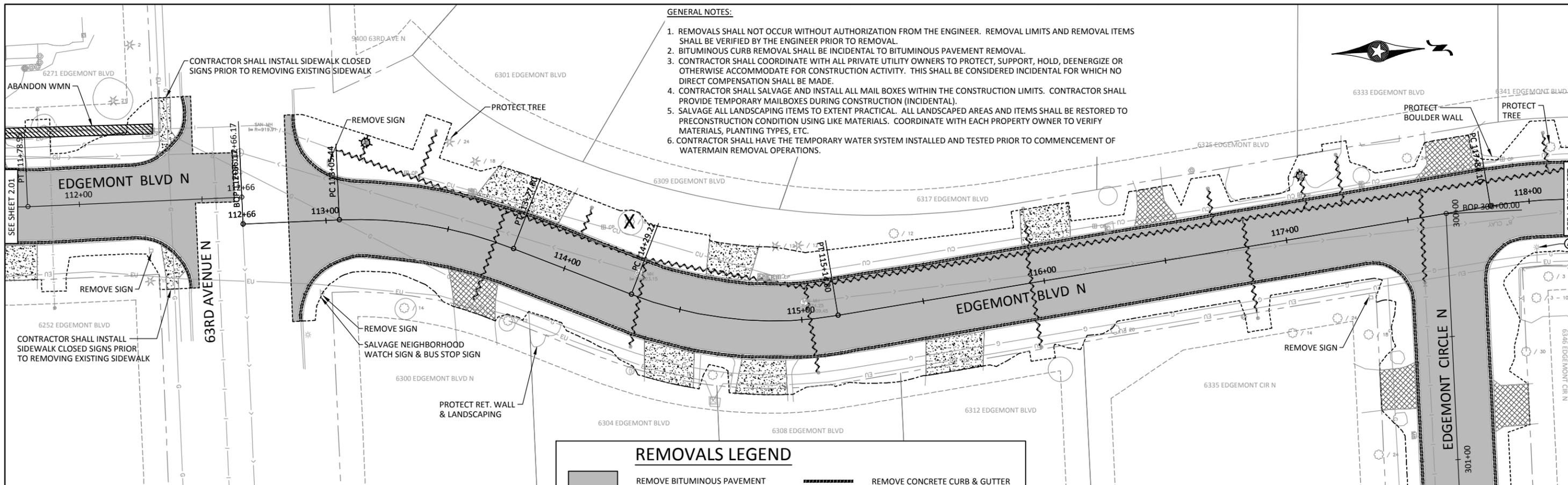
- GENERAL NOTES:**
1. REMOVALS SHALL NOT OCCUR WITHOUT AUTHORIZATION FROM THE ENGINEER. REMOVAL LIMITS AND REMOVAL ITEMS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO REMOVAL.
 2. BITUMINOUS CURB REMOVAL SHALL BE INCIDENTAL TO BITUMINOUS PAVEMENT REMOVAL.
 3. CONTRACTOR SHALL COORDINATE WITH ALL PRIVATE UTILITY OWNERS TO PROTECT, SUPPORT, HOLD, DEENERGIZE OR OTHERWISE ACCOMMODATE FOR CONSTRUCTION ACTIVITY. THIS SHALL BE CONSIDERED INCIDENTAL FOR WHICH NO DIRECT COMPENSATION SHALL BE MADE.
 4. CONTRACTOR SHALL SALVAGE AND INSTALL ALL MAIL BOXES WITHIN THE CONSTRUCTION LIMITS. CONTRACTOR SHALL PROVIDE TEMPORARY MAILBOXES DURING CONSTRUCTION (INCIDENTAL).
 5. SALVAGE ALL LANDSCAPING ITEMS TO EXTENT PRACTICAL. ALL LANDSCAPED AREAS AND ITEMS SHALL BE RESTORED TO PRECONSTRUCTION CONDITION USING LIKE MATERIALS. COORDINATE WITH EACH PROPERTY OWNER TO VERIFY MATERIALS, PLANTING TYPES, ETC.
 6. CONTRACTOR SHALL HAVE THE TEMPORARY WATER SYSTEM INSTALLED AND TESTED PRIOR TO COMMENCEMENT OF WATERMAIN REMOVAL OPERATIONS.



 HORZ. SCALE © Bolton & Menk, Inc. 2015, All Rights Reserved H:\BRPK\C13110831\CAD\C30\Sheets\110831_EXC.dwg 1/18/16 5:45 pm		I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. JOSHUA ECKSTEIN LIC. NO. 48224 DATE 01/15/2016	DESIGNED: SAE DRAWN: DDS CHECKED: JZE	 BOLTON & MENK, INC. Consulting Engineers & Surveyors MANKATO, MN FAIRMONT, MN SLEEPY EYE, MN BURNSVILLE, MN WILLMAR, MN CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND	REV. BY DATE	CITY OF BROOKLYN PARK, MINNESOTA 2016 STREET RECONSTRUCTION PROJECT EXISTING CONDITIONS & REMOVAL PLAN	SHEET 2.01 OF 108
					(Empty table for revisions)	(Empty table for project details)	

GENERAL NOTES:

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6. CONTRACTOR SHALL HAVE THE TEMPORARY WATER SYSTEM INSTALLED AND TESTED PRIOR TO COMMENCEMENT OF WATERMAIN REMOVAL OPERATIONS.



REMOVALS LEGEND	
	REMOVE BITUMINOUS PAVEMENT
	REMOVE CONCRETE DRIVEWAY/ SIDEWALK/VALLEY GUTTER
	REMOVE BITUMINOUS DRIVEWAY
	SALVAGE BRICK DRIVEWAY
	CONSTRUCTION LIMITS
	RELOCATE STREET LIGHT (BY OTHERS)
	REMOVE CONCRETE CURB & GUTTER
	REMOVE WATERMAIN/WATER SERVICE
	REMOVE HYDRANT
	REMOVE STORM SEWER
	REMOVE STORM SEWER MANHOLE
	SALVAGE FENCE
	SALVAGE RETAINING WALL
	CLEAR & GRUB TREE

NOTE:
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES THAT ARE SHOWN, ARE SHOWN IN AN APPROXIMATE WAY ONLY. IT IS NOT GUARANTEED THAT ANY OR ALL EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

0 20 40
HORZ. SCALE FEET

Brooklyn Park
Unique. United. Undiscovered.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Joshua Eckstein
JOSHUA ECKSTEIN
LIC. NO. 48224 DATE 01/15/2016

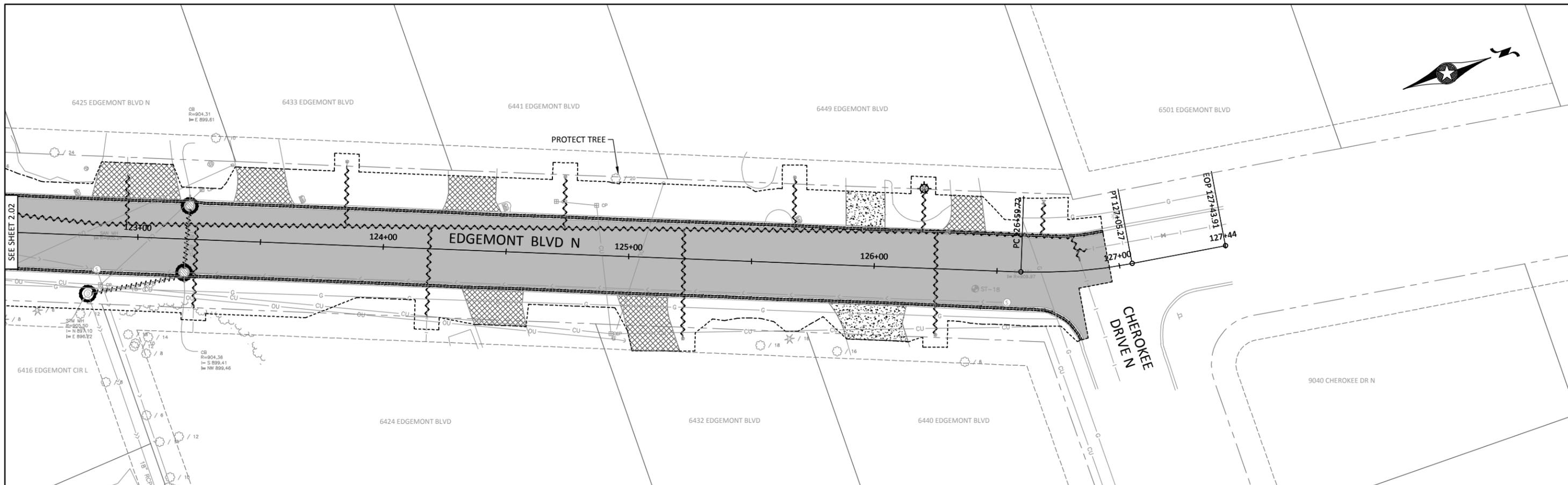
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MANKATO, MN FAIRMONT, MN SLEEPY EYE, MN BURNSVILLE, MN WILLMAR, MN
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CITY OF BROOKLYN PARK, MINNESOTA
2016 STREET RECONSTRUCTION PROJECT
EXISTING CONDITIONS & REMOVAL PLAN

SHEET 2.02 OF 108



GENERAL NOTES:

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REMOVALS LEGEND

	REMOVE BITUMINOUS PAVEMENT		REMOVE CONCRETE CURB & GUTTER
	REMOVE CONCRETE DRIVEWAY/ SIDEWALK/VALLEY GUTTER		REMOVE WATERMAIN/WATER SERVICE
	REMOVE BITUMINOUS DRIVEWAY		REMOVE HYDRANT
	SALVAGE BRICK DRIVEWAY		REMOVE STORM SEWER
	CONSTRUCTION LIMITS		REMOVE STORM SEWER MANHOLE
	RELOCATE STREET LIGHT (BY OTHERS)		SALVAGE FENCE
			SALVAGE RETAINING WALL
			CLEAR & GRUB TREE

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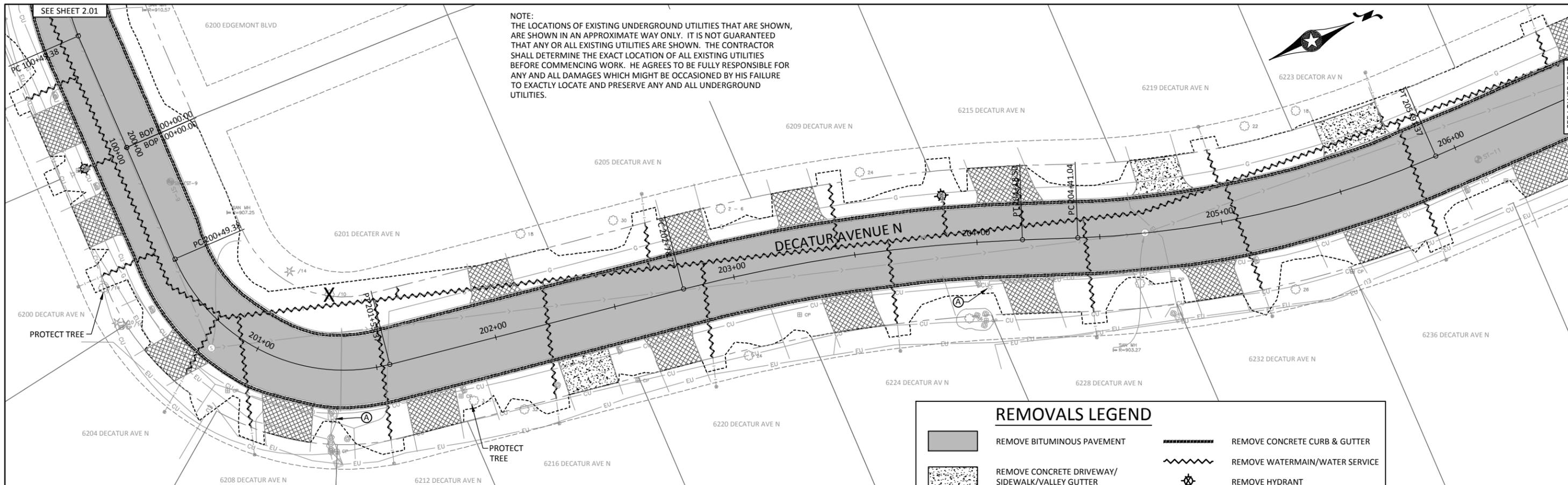
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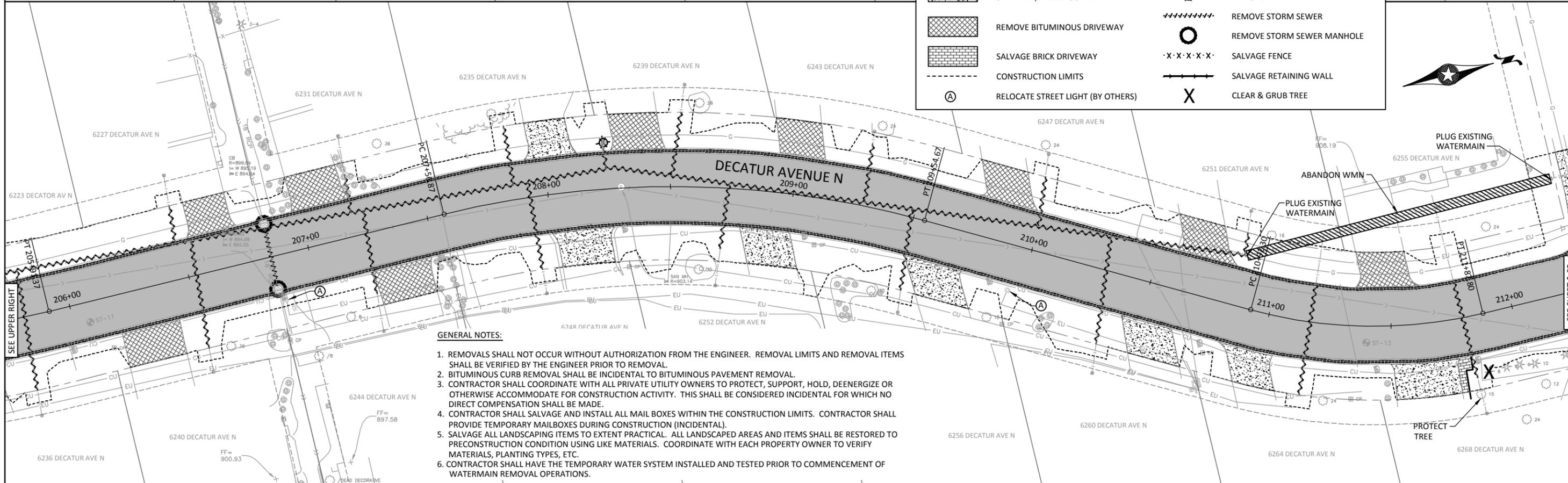
CITY OF BROOKLYN PARK, MINNESOTA
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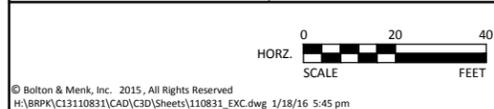
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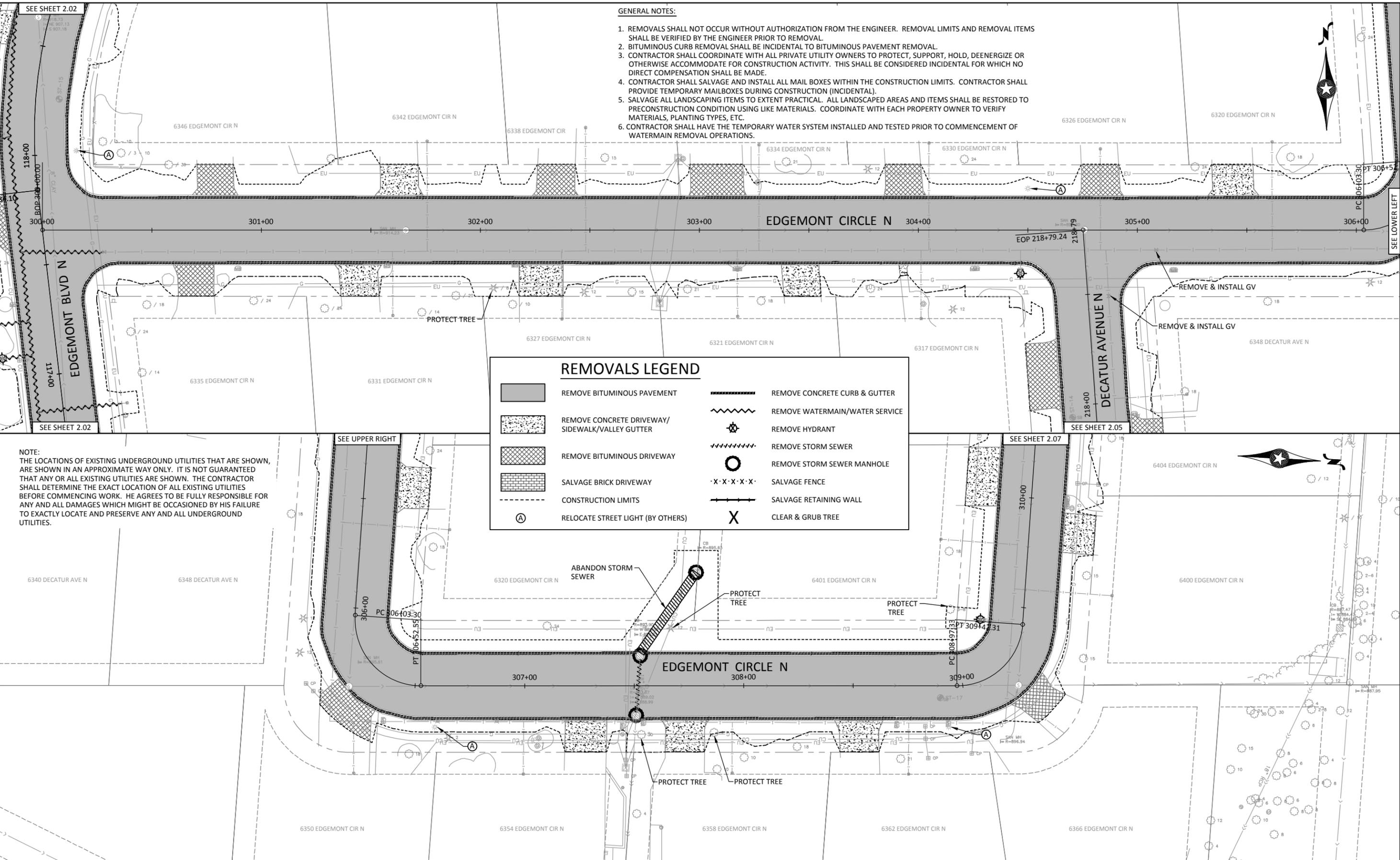
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 2016 STREET RECONSTRUCTION PROJECT
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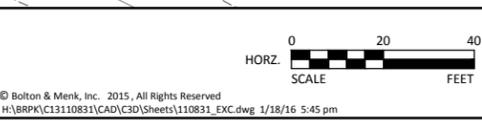


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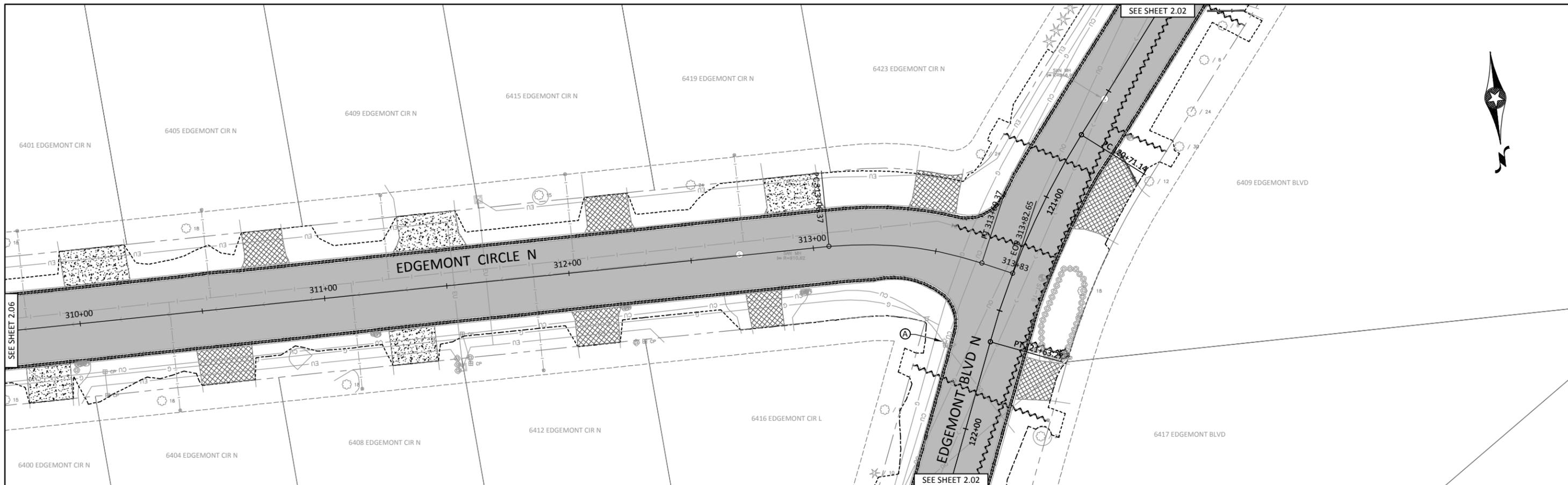
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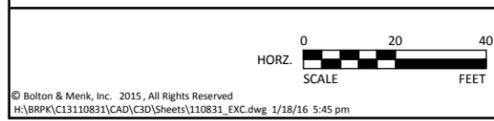


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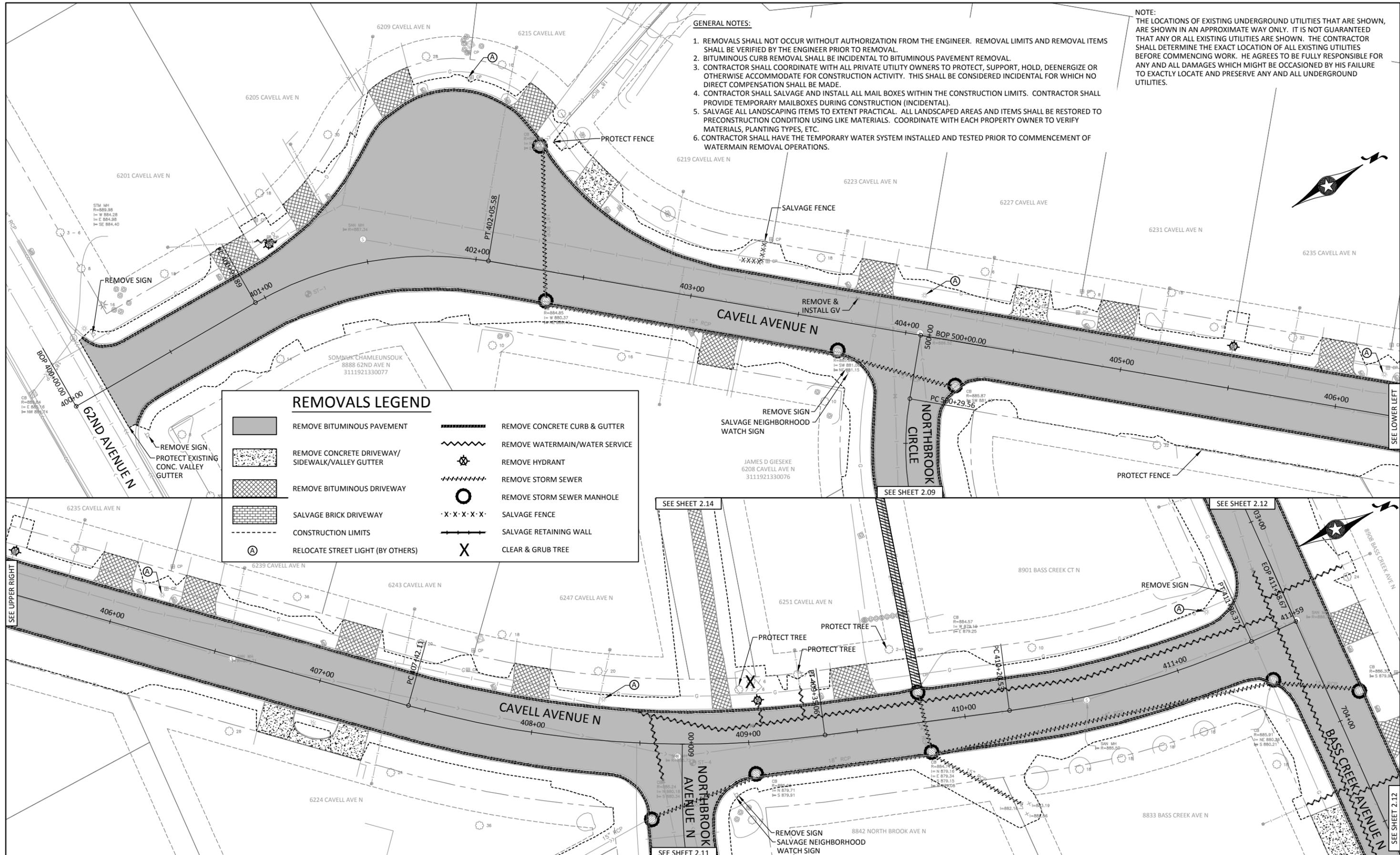
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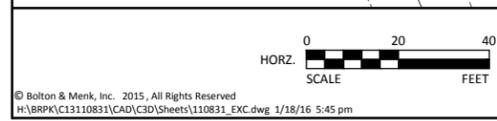


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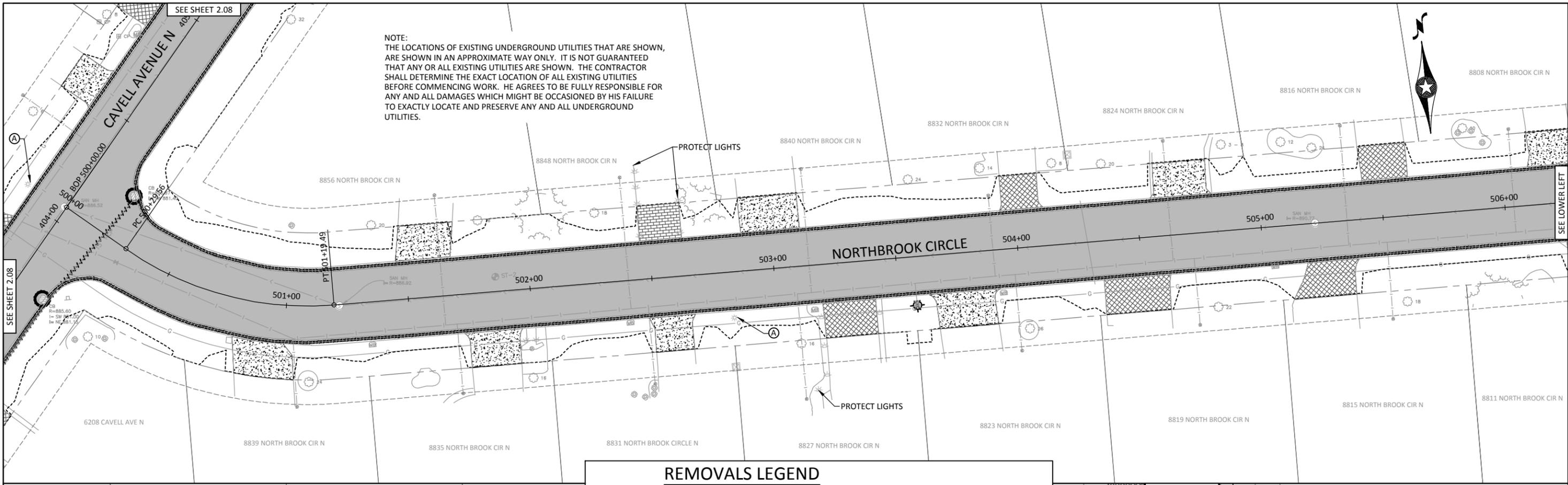
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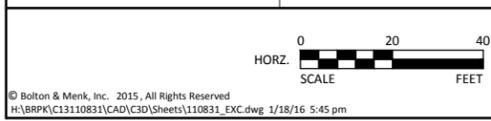
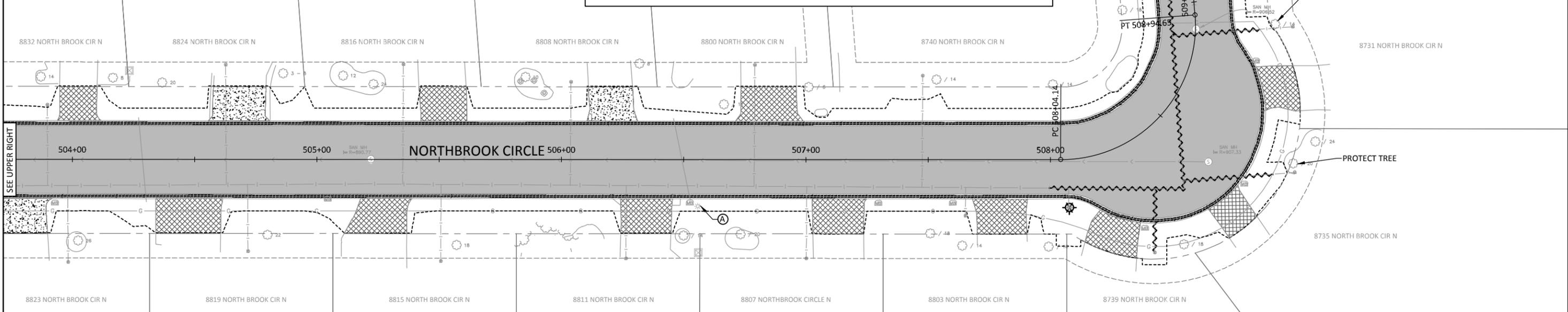
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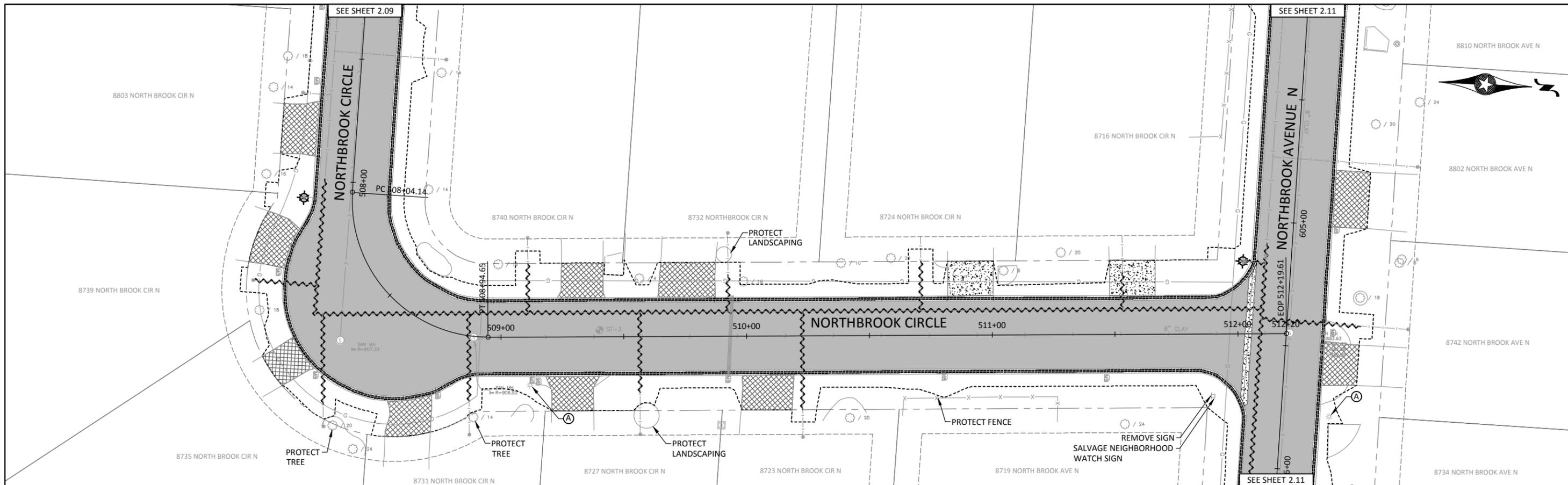
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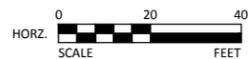
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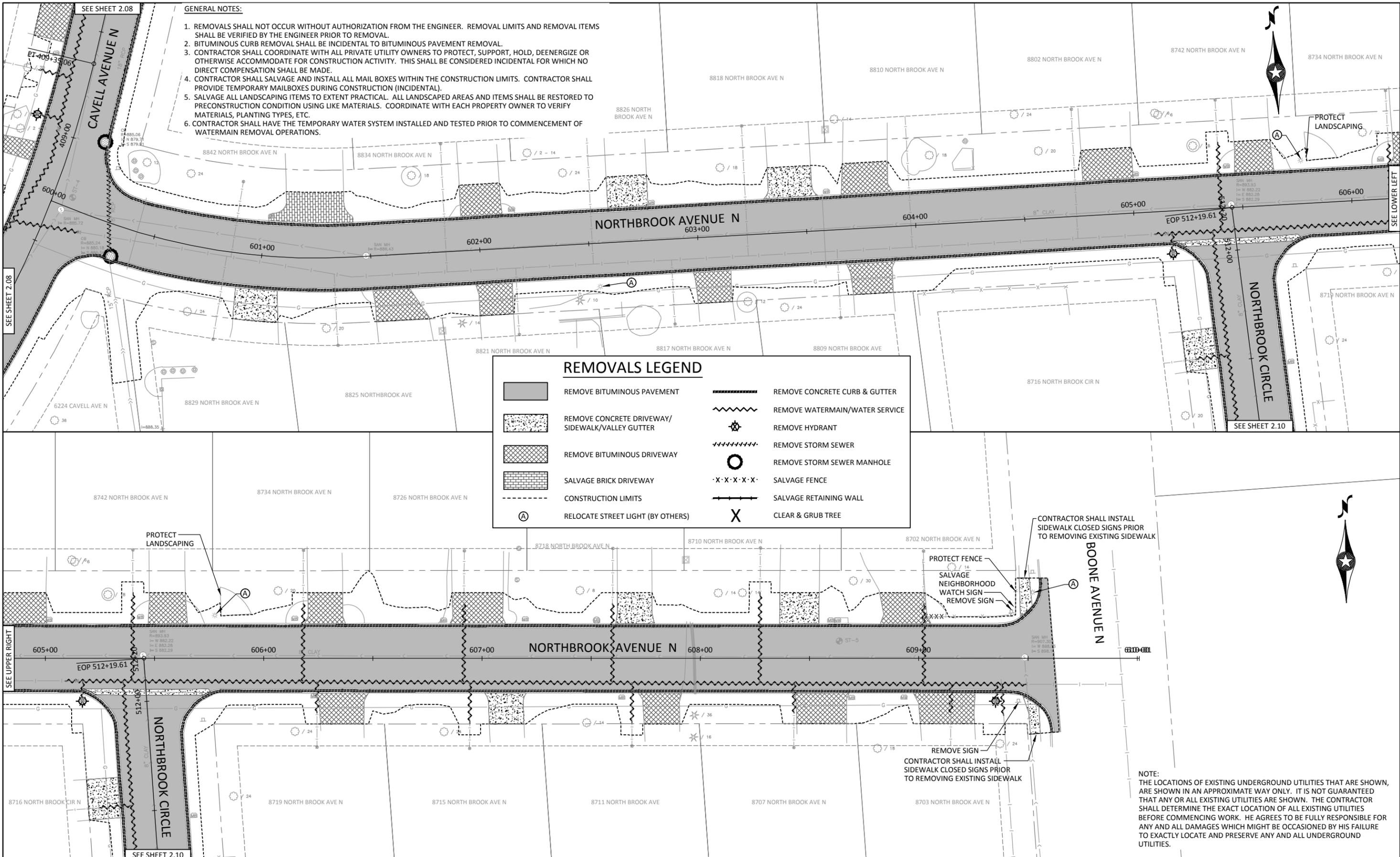
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	REMOVE CONCRETE DRIVEWAY/SIDEWALK/VALLEY GUTTER		REMOVE WATERMAIN/WATER SERVICE
	REMOVE BITUMINOUS DRIVEWAY		REMOVE HYDRANT
	SALVAGE BRICK DRIVEWAY		REMOVE STORM SEWER
	CONSTRUCTION LIMITS		REMOVE STORM SEWER MANHOLE
	RELOCATE STREET LIGHT (BY OTHERS)		SALVAGE FENCE
			SALVAGE RETAINING WALL
			CLEAR & GRUB TREE



Brooklyn Park
 Unique. United. Undiscovered.

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 LIC. NO. 48224 DATE 01/15/2016

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REV.	BY	DATE

CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 EXISTING CONDITIONS & REMOVAL PLAN

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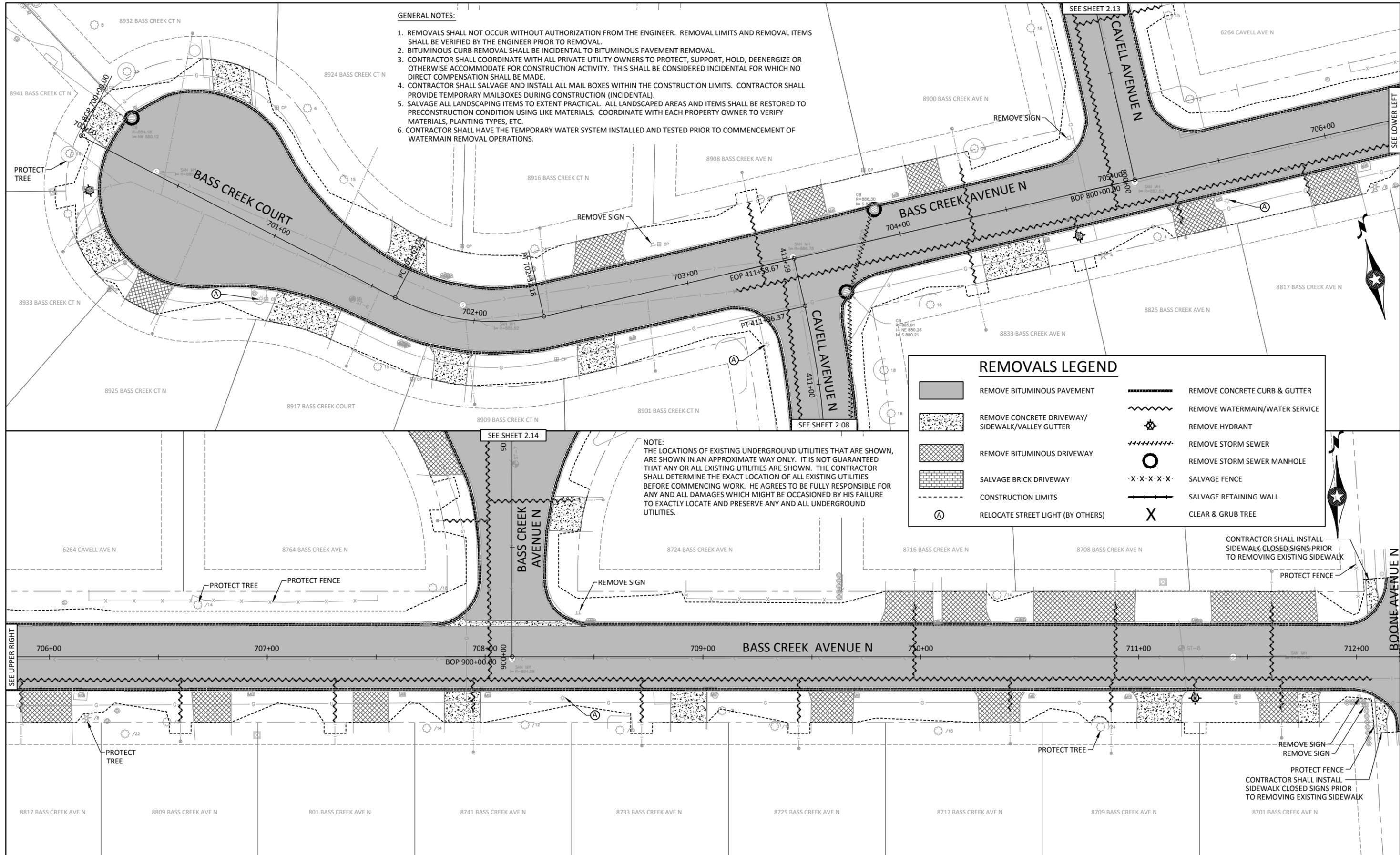
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 DRAWN: DDS
 CHECKED: JZE

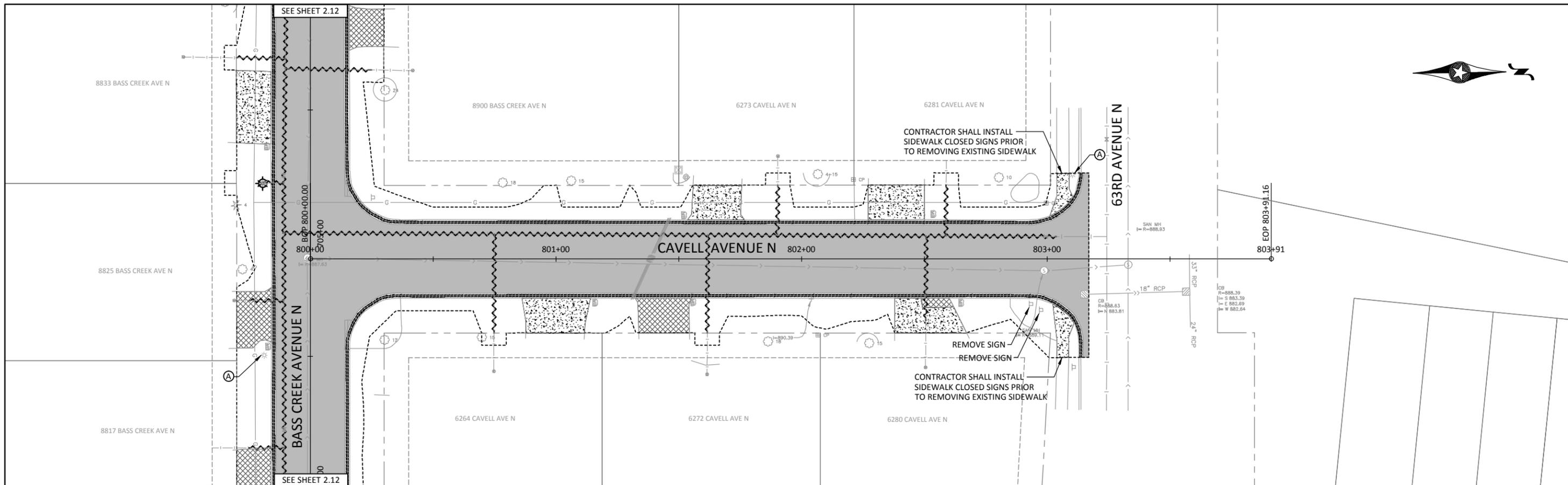
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CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 EXISTING CONDITIONS & REMOVAL PLAN

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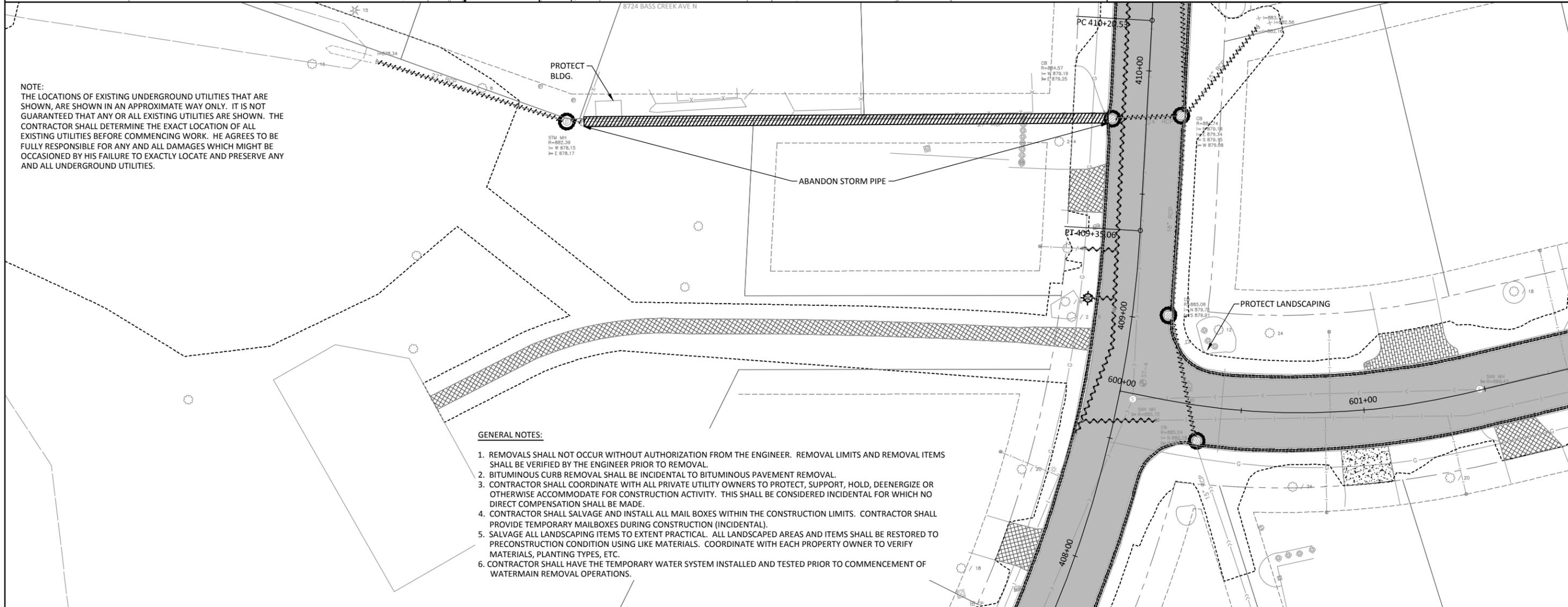
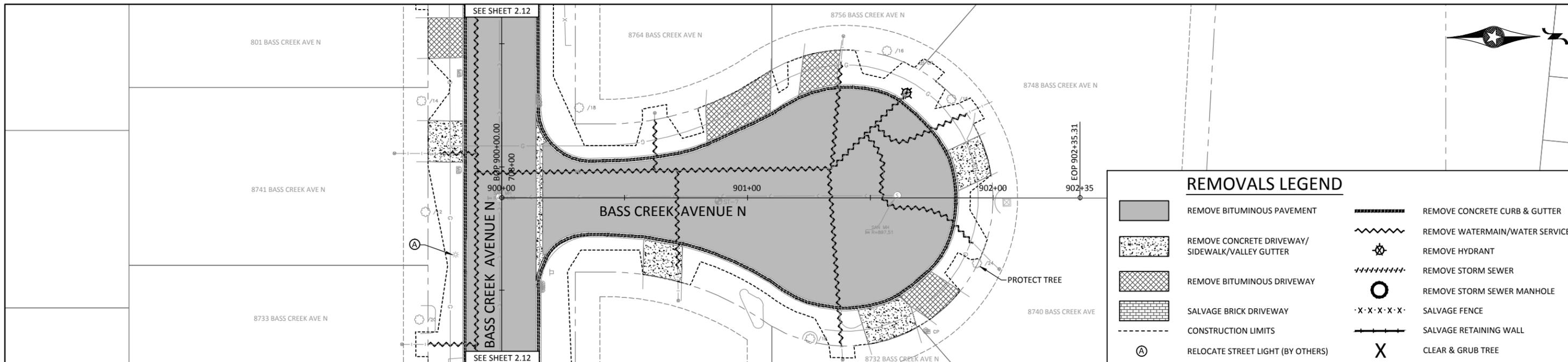
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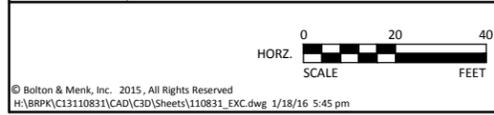
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CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 EXISTING CONDITIONS & REMOVAL PLAN

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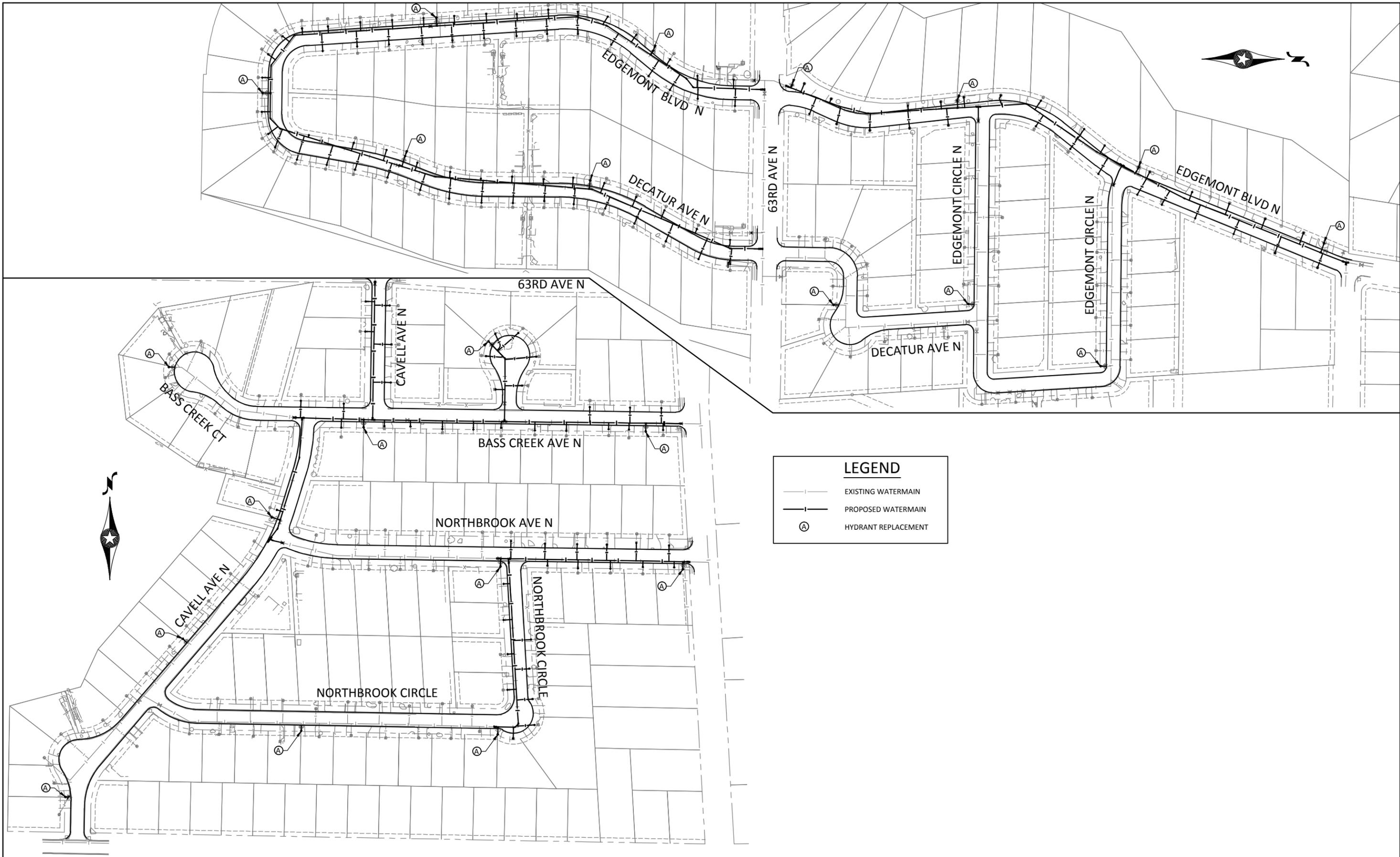
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CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 EXISTING CONDITIONS & REMOVAL PLAN



LEGEND

- EXISTING WATERMAIN
- PROPOSED WATERMAIN
- HYDRANT REPLACEMENT



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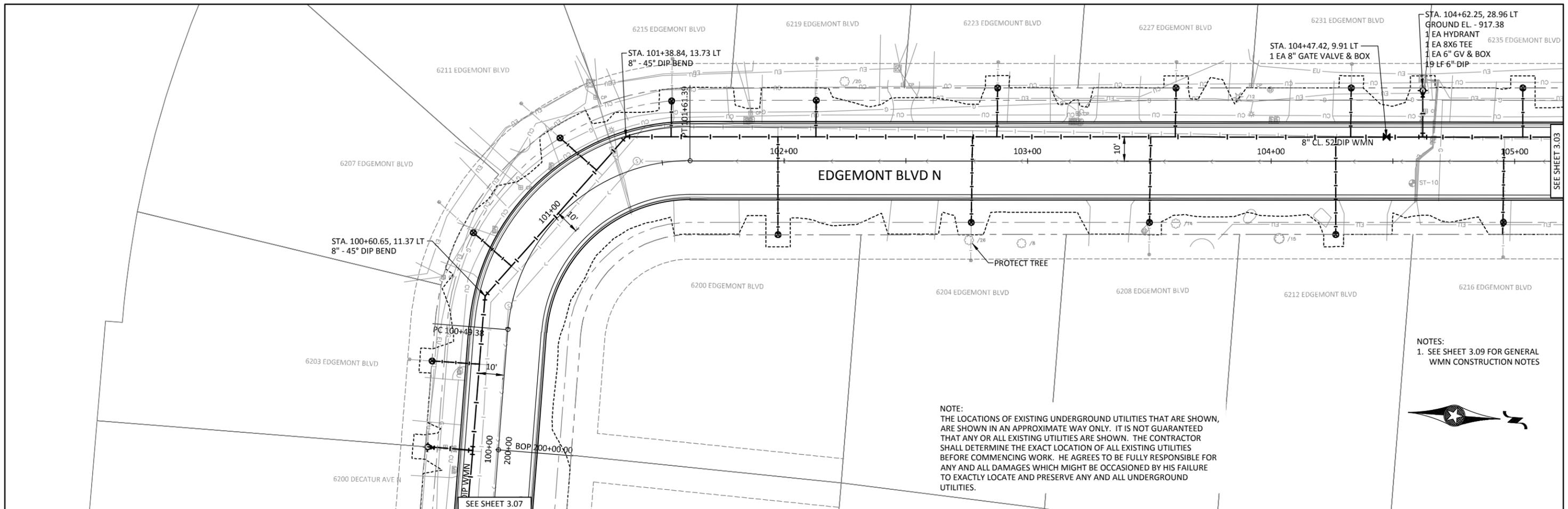
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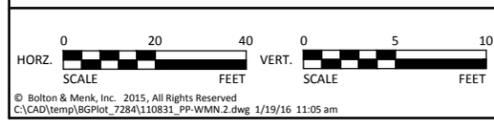
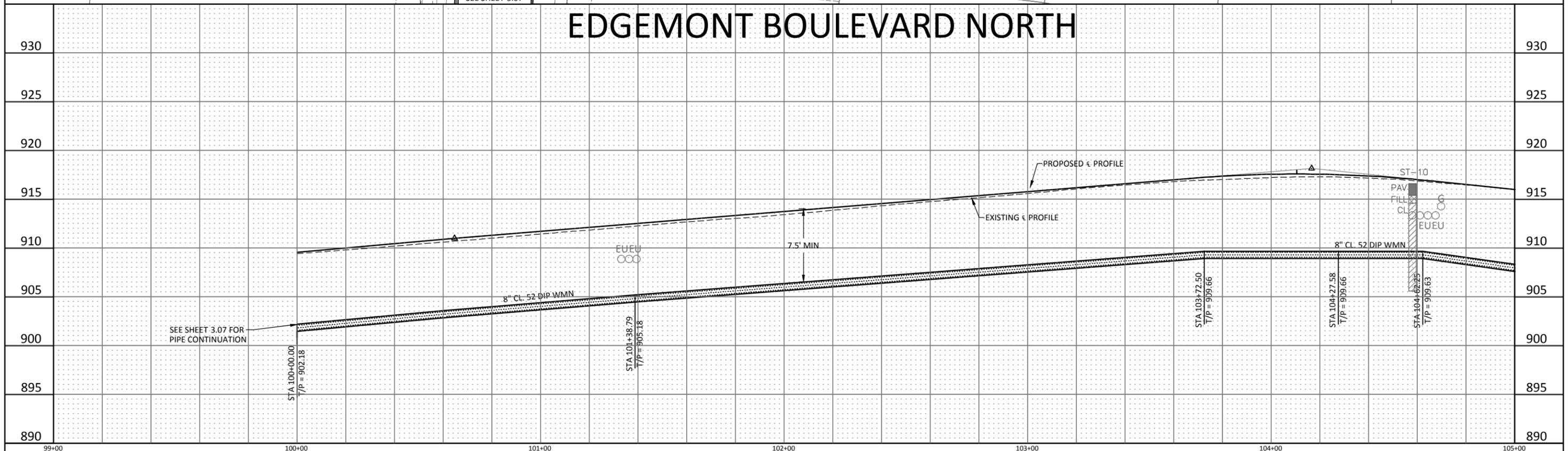
CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 WATERMAIN LOCATION MAP

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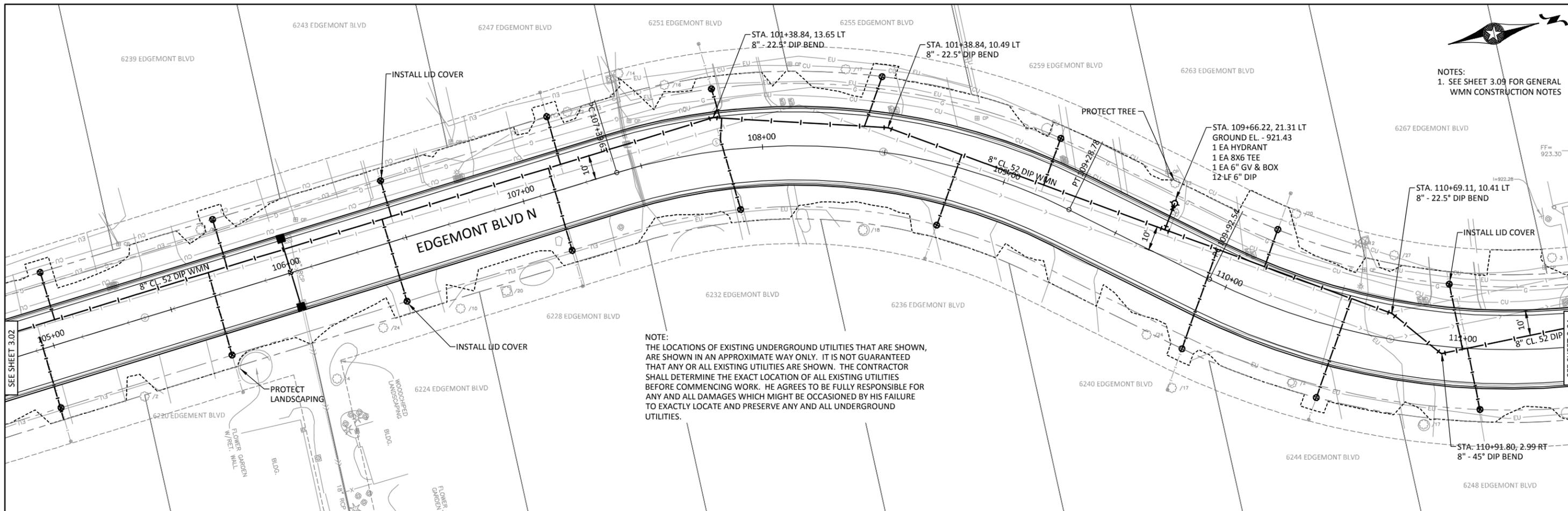
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2016 STREET RECONSTRUCTION PROJECT
WATERMAIN PLAN

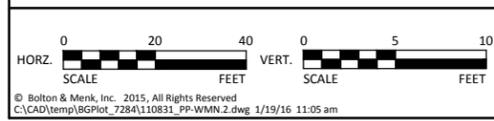
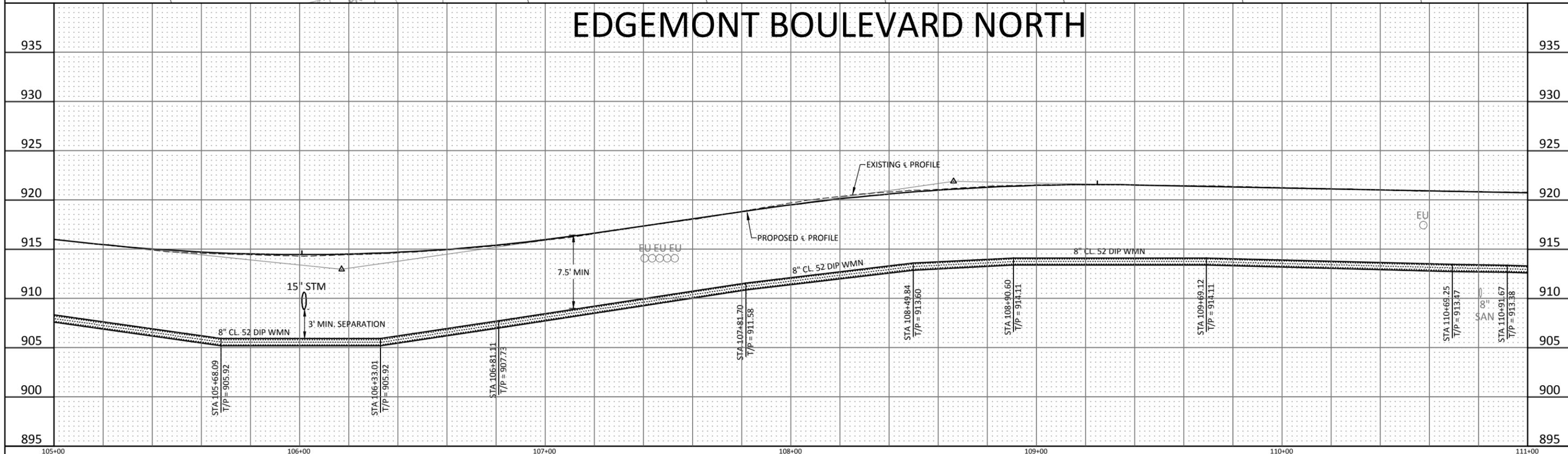
3.02 OF 108



NOTES:
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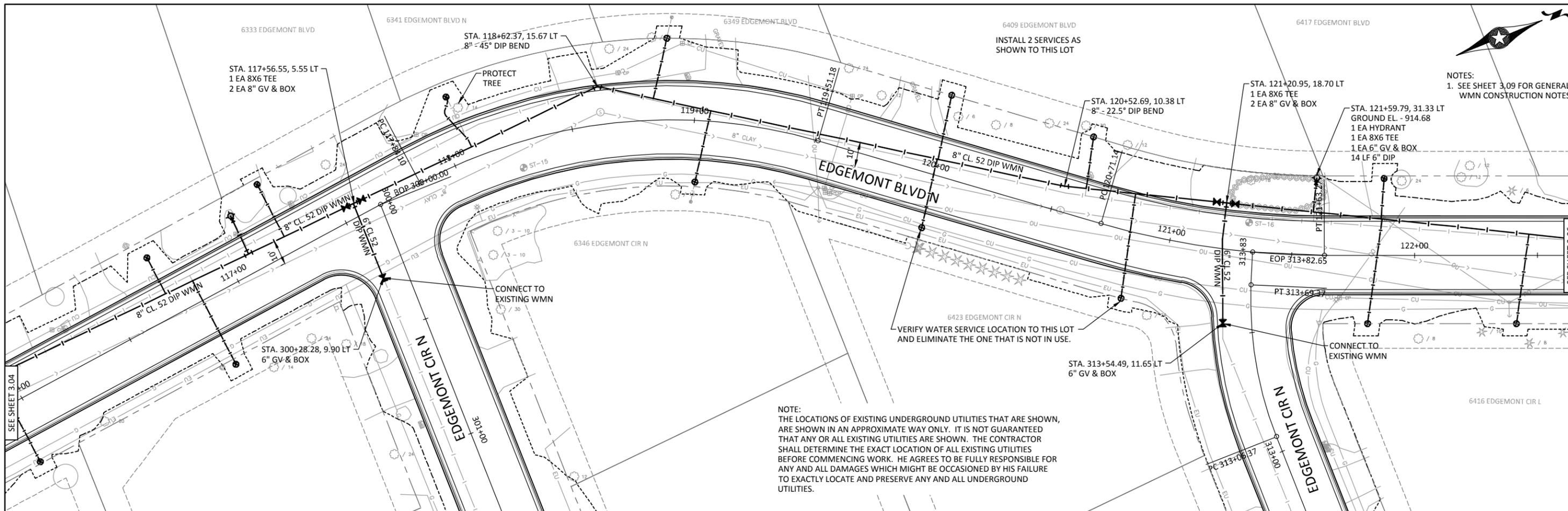
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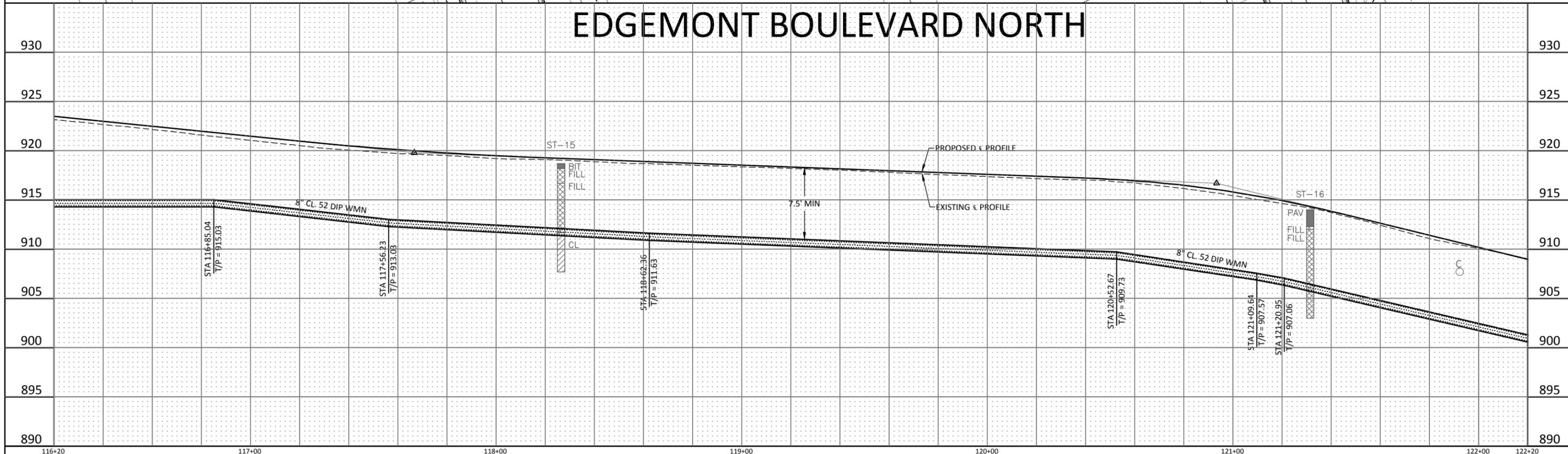
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WATERMAIN PLAN

3.03 OF 108



EDGEMONT BOULEVARD NORTH

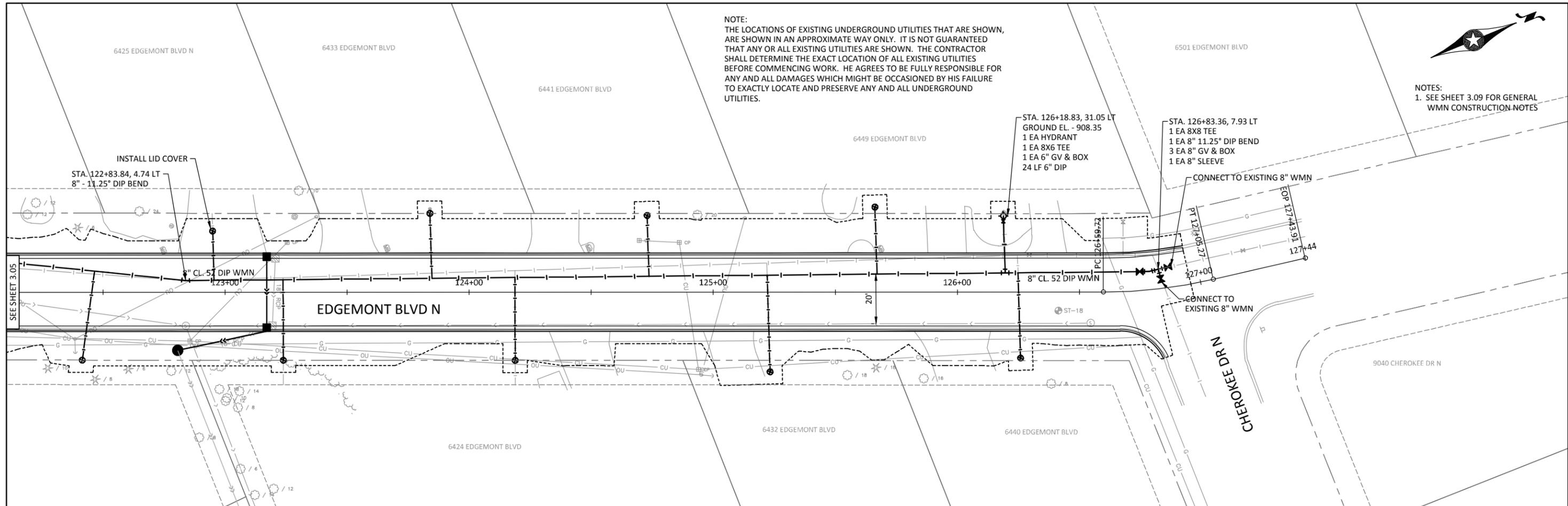


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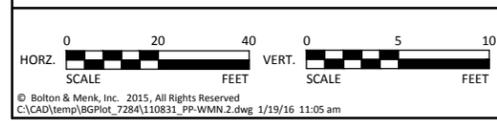
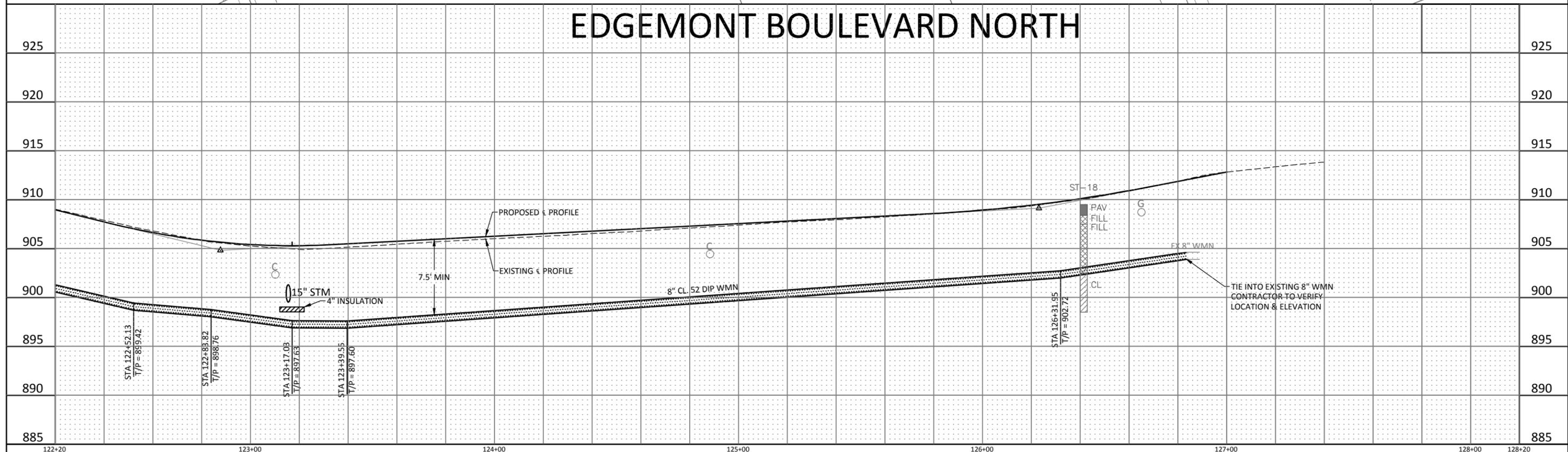
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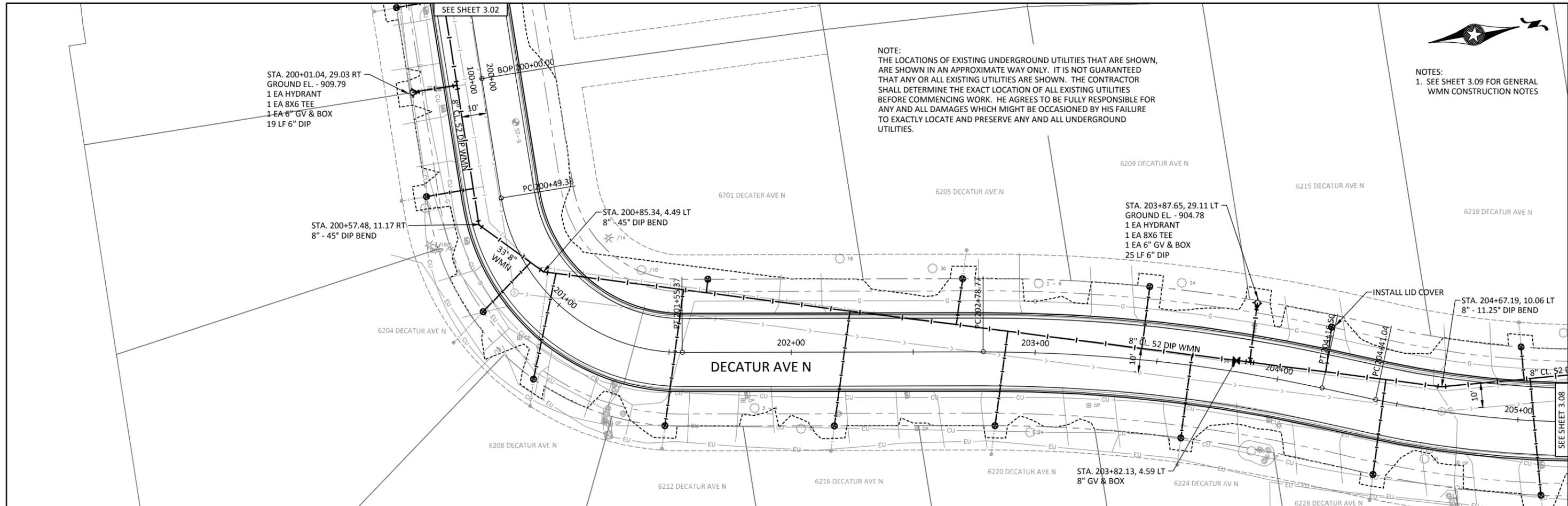
CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT

3.06 OF 108
 WATERMAIN PLAN

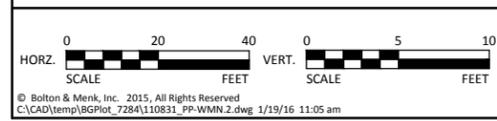
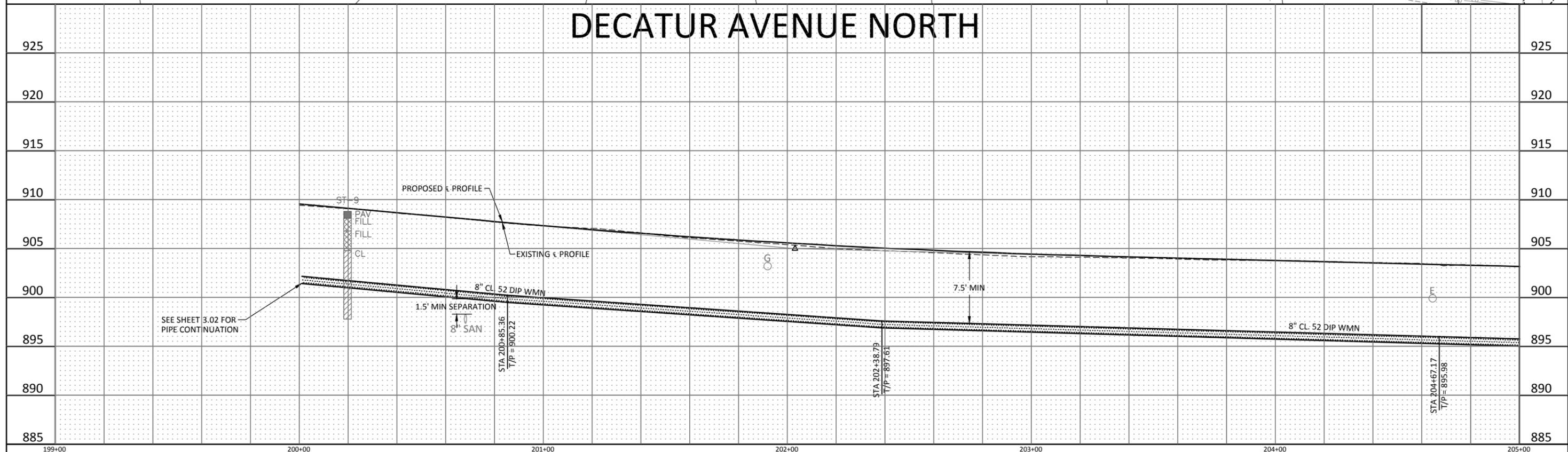


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DECATUR AVENUE NORTH



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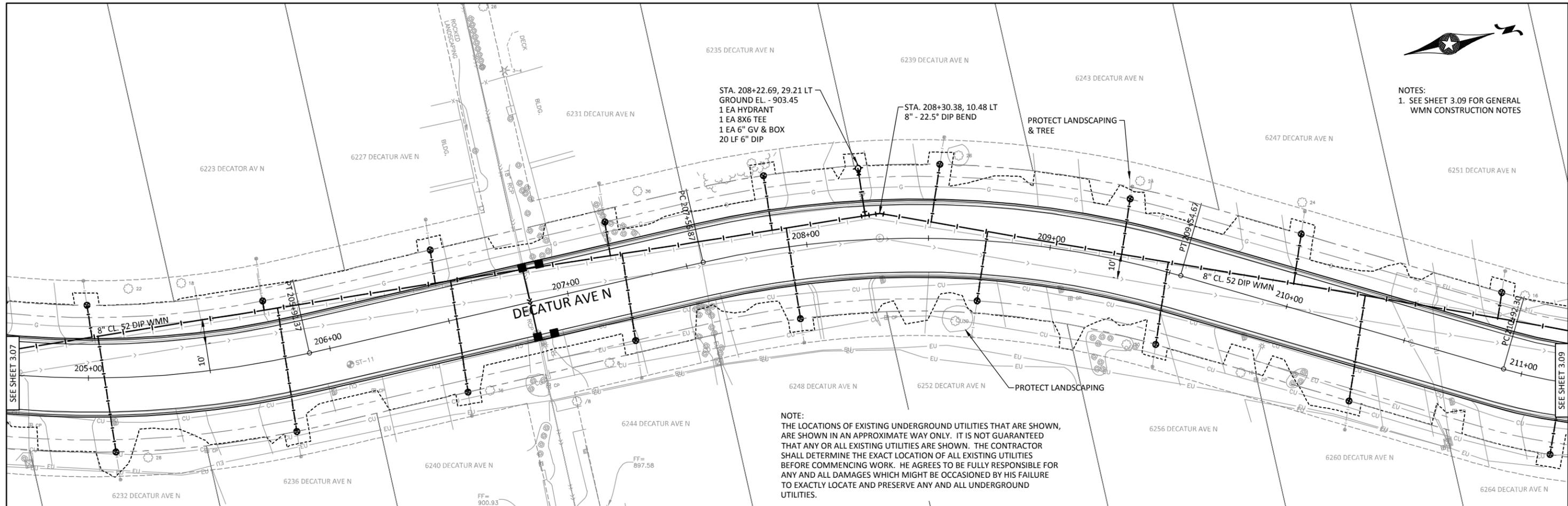
CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT

WATERMAIN PLAN

3.07 OF 108



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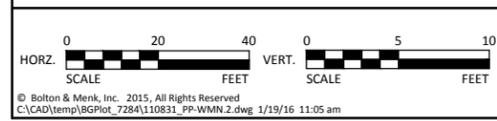
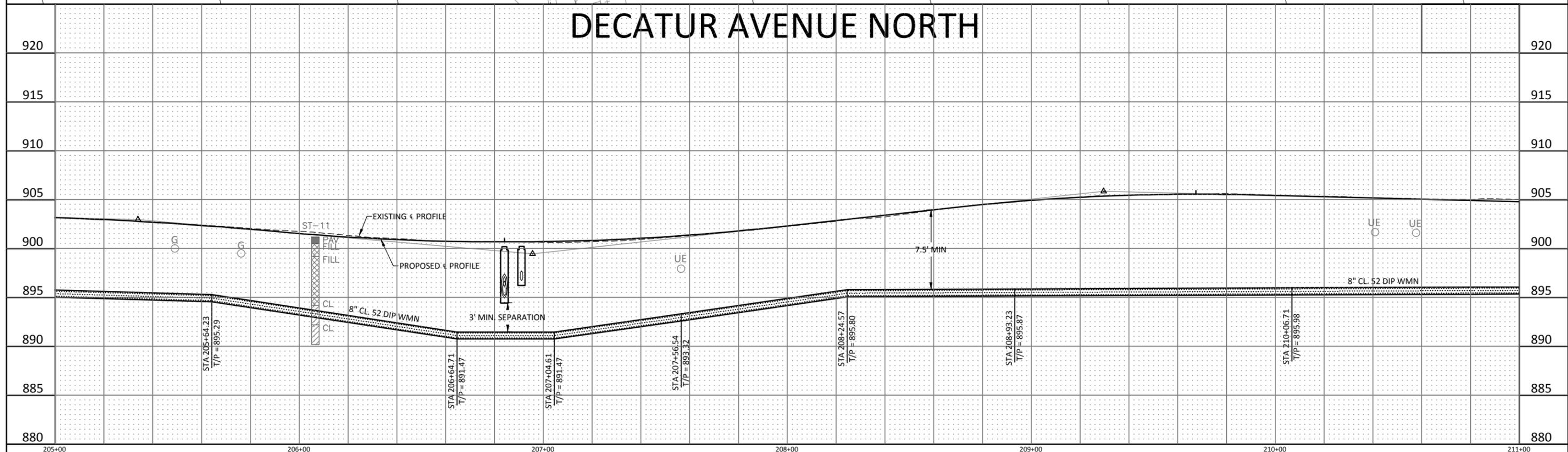


STA. 208+22.69, 29.21 LT
GROUND EL. - 903.45
1 EA HYDRANT
1 EA 8X6 TEE
1 EA 6" GV & BOX
20 LF 6" DIP

STA. 208+30.38, 10.48 LT
8" - 22.5° DIP BEND

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DECATUR AVENUE NORTH



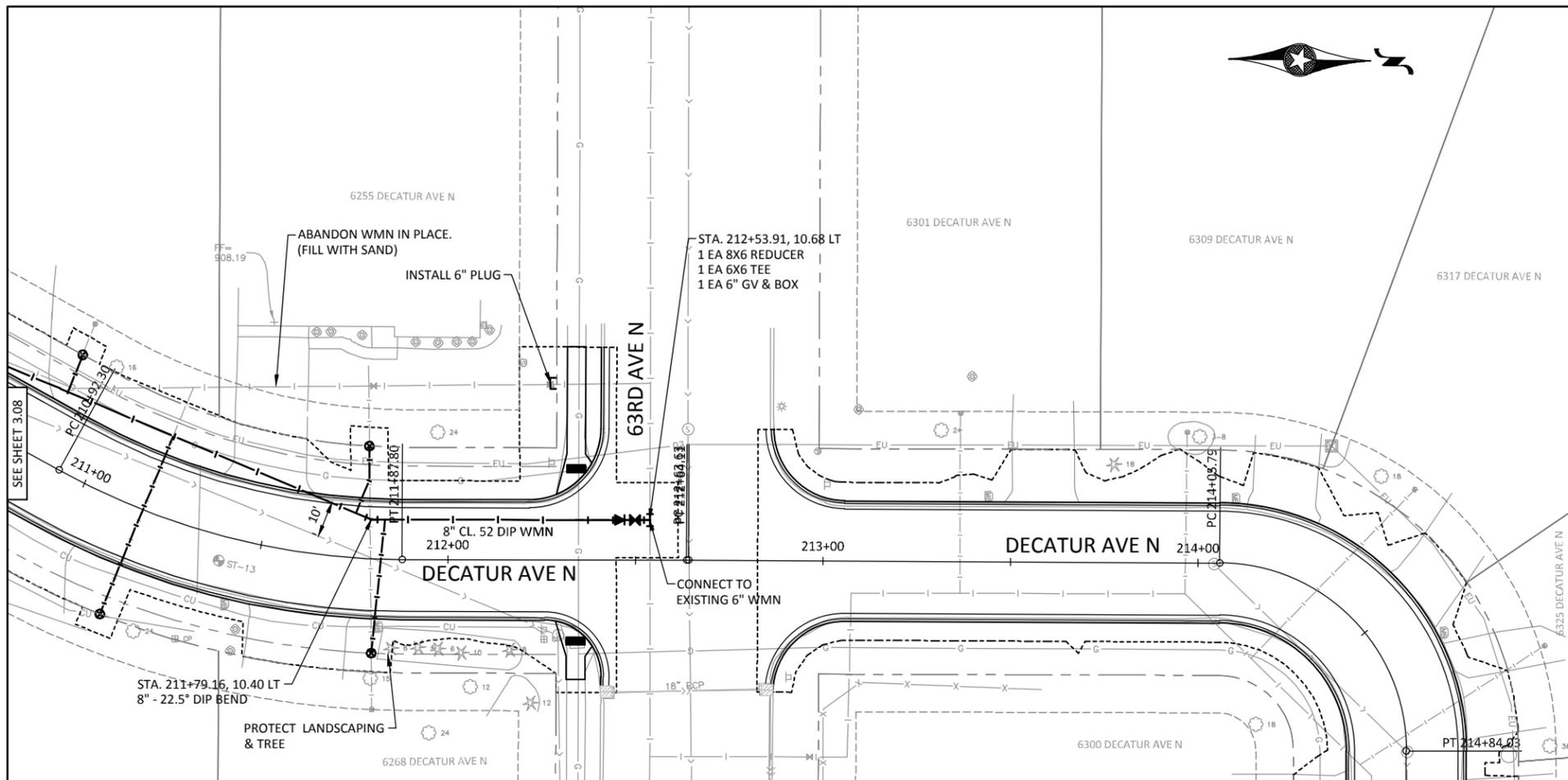
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Joshua Eckstein
JOSHUA ECKSTEIN
LIC. NO. 48224 DATE 01/15/2016

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Consulting Engineers & Surveyors
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REV.	BY	DATE

CITY OF BROOKLYN PARK, MINNESOTA
2016 STREET RECONSTRUCTION PROJECT
WATERMAIN PLAN

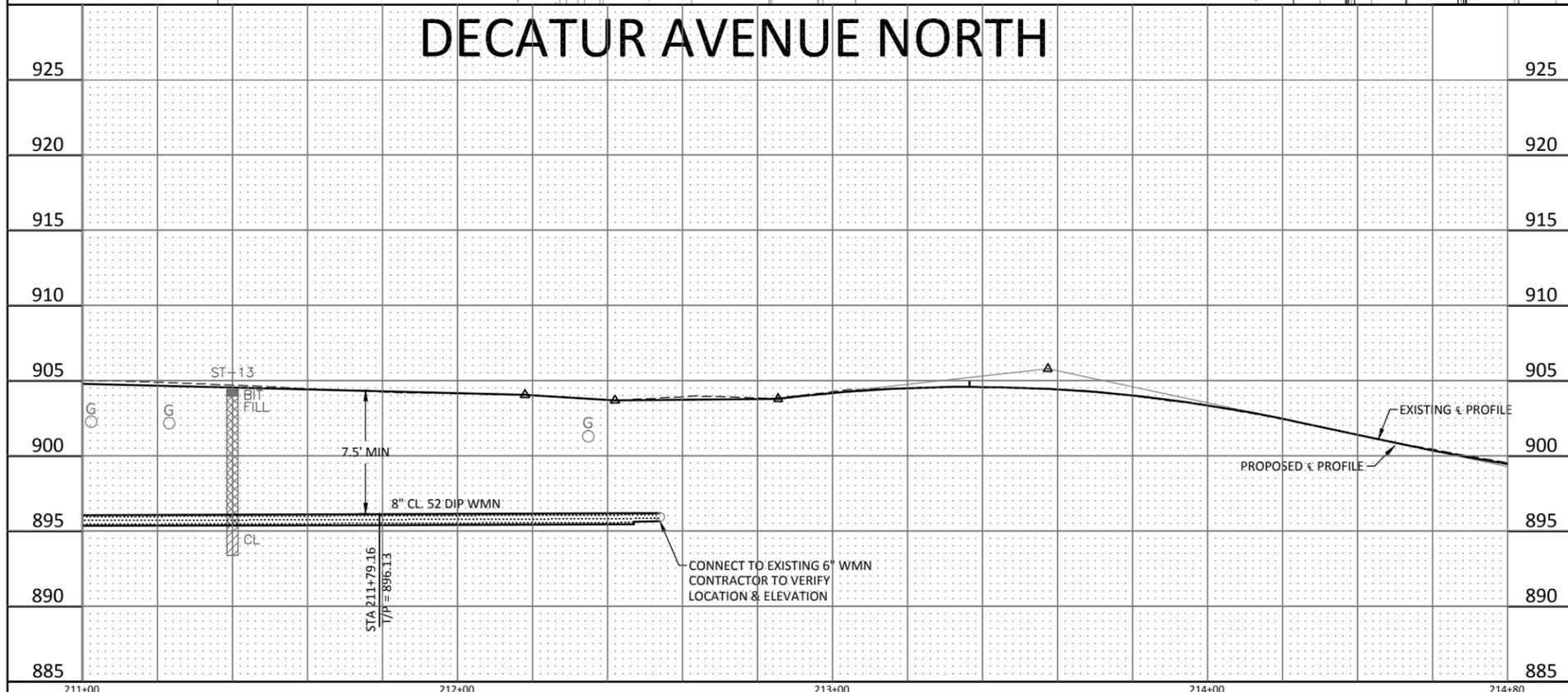
3.08 OF 108



GENERAL WATERMAIN NOTES:

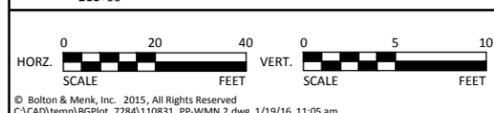
1. TEMPORARY WATER SERVICE SHALL BE PROVIDED TO ALL PROPERTIES WHERE THE EXISTING WATER SUPPLY WILL BE OUT OF SERVICE FOR MORE THAN 4 HOURS. THE CONTRACTOR SHALL DETERMINE ALL STAGING AND PHASING AND SHALL SUBMIT A STAGING AND PHASING PLAN FOR WATERMAIN CONSTRUCTION TO BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION
2. ALL EXCAVATION & EQUIPMENT SHALL REMAIN WITHIN ROW, EASEMENTS, OR REMOVAL LIMITS SHOWN. TRENCH BOX OR SHEETING MAY BE REQUIRED. (INCIDENTAL)
3. CONTRACTOR SHALL PROTECT AND SUPPORT AS NECESSARY ALL TREES, BUILDINGS, LANDSCAPING, RETAINING WALLS, WALKWAYS, DRIVEWAYS, CURB & GUTTER, ETC. UNLESS NOTED OTHERWISE IN THE PLAN OR IN THE FIELD BY THE ENGINEER.
4. CONTRACTOR SHALL SALVAGE AND INSTALL OR PROTECT ALL LANDSCAPING INCLUDING BOULDERS, EDGING, LANDSCAPE ROCK, MULCH, BUSHES, PLANTS, LAWN ORNAMENTS, ETC. THAT ARE DISTURBED BY CONSTRUCTION.
5. CONTRACTOR SHALL PROTECT & SUPPORT ALL EXISTING PUBLIC AND PRIVATE UTILITIES (GAS, TELEPHONE, ELECTRIC, CABLE, WATERMAIN, STORM, SANITARY, ETC) AS DIRECTED BY UTILITY OWNER UNLESS OTHERWISE NOTED.
6. TRAFFIC CONTROL WILL BE REQUIRED FOR ALL LANE CLOSURES, TEMPORARY ROAD CLOSURES, OR FOR CONSTRUCTION IMMEDIATELY ADJACENT TO THE TRAVELED LANE. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MOST CURRENT VERSION OF THE MUTCD TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS. THE ENGINEER, PRIOR TO PLACEMENT, SHALL APPROVE ALL TRAFFIC CONTROL LAYOUTS.
7. RAISE/LOWER PROPOSED WATERMAIN AS REQUIRED TO AVOID CONFLICTS W/ EXISTING SANITARY SERVICES, WATER SERVICES, STORM SEWER, UTILITY CROSSINGS, ETC. (INCIDENTAL)
8. TIE ALL VERTICAL BENDS (INCIDENTAL).
9. ACCESS TO RESIDENCES & BUSINESSES SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE CONTRACT.
10. INSTALL 1" TYPE K COPPER WATER SERVICE LINES UNLESS OTHERWISE NOTED ON THE PLAN OR IF LARGER EXISTING SIZE IS ENCOUNTERED THAT SIZE SHALL BE MATCHED.
11. WATER SERVICE LID COVERS TO BE USED WHERE CURB STOP IS PLACED IN DRIVEWAY OR SIDEWALK.
12. CONTRACTOR SHALL VERIFY ALL UTILITY CROSSING LOCATIONS AND ELEVATIONS PRIOR TO INSTALLATION OF UTILITY. IF CONFLICTS ARE ENCOUNTERED CONTRACTOR SHALL NOTIFY THE ENGINEER AND COORDINATE WITH UTILITY OWNERS TO HOLD/PROTECT/SUPPORT/LOWER LINES/AND POLES DURING CONSTRUCTION (INCIDENTAL).
13. THE CONTRACTOR MUST MAINTAIN WATERMAIN, SANITARY SEWER AND STORM SEWER FUNCTIONALITY THROUGHOUT THE PROJECT. TEMPORARY CONNECTIONS, BYPASS PUMPING OR TEMPORARY WATER SERVICE INSTALLED DURING THE PROJECT TO MAINTAIN AND SUPPORT THE EXISTING INFRASTRUCTURE, THAT ARE NOT IDENTIFIED ON THE PLAN OR DEFINED IN THE PROJECT SPECIFICATIONS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT FOR WHICH NO DIRECT COMPENSATION SHALL BE MADE.
14. SERVICE LOCATIONS SHOWN ON THE PLAN ARE BASED ON BEST INFORMATION AVAILABLE. DELAYS AS A RESULT OF VERIFYING SERVICE LOCATIONS AND OR RELOCATING EXISTING SERVICE LINES TO AVOID CONFLICTS WITH EXISTING OR PROPOSED UTILITIES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

DECATUR AVENUE NORTH



NOTE:

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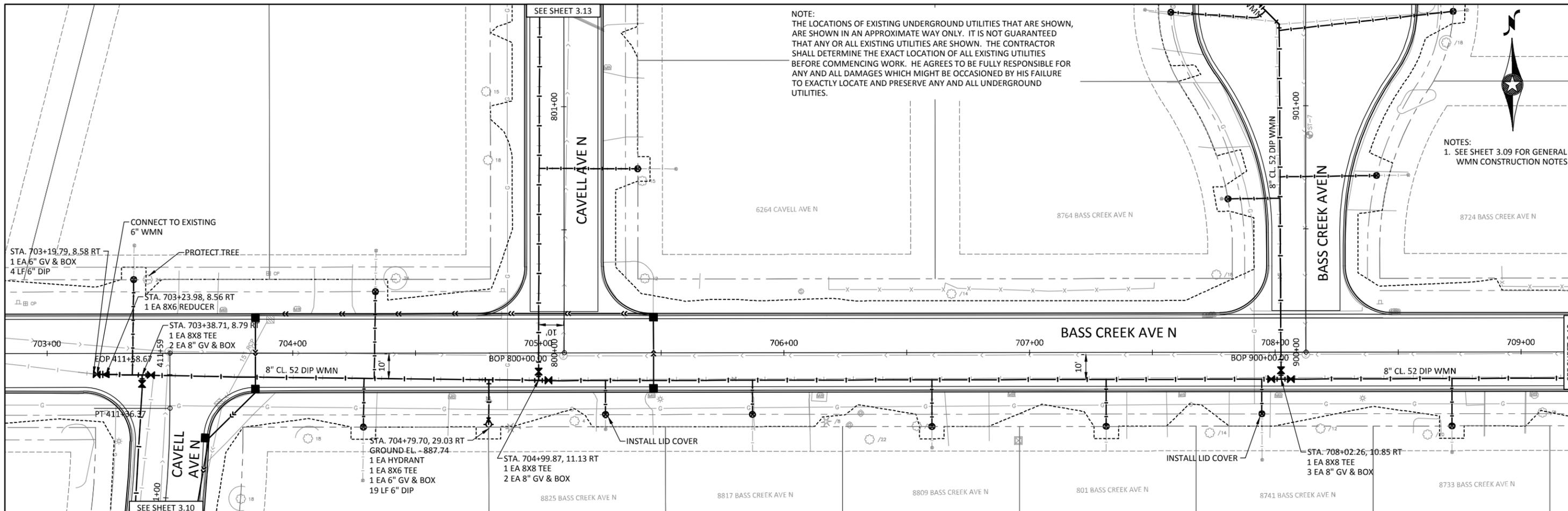
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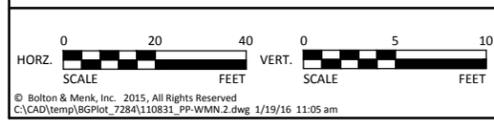
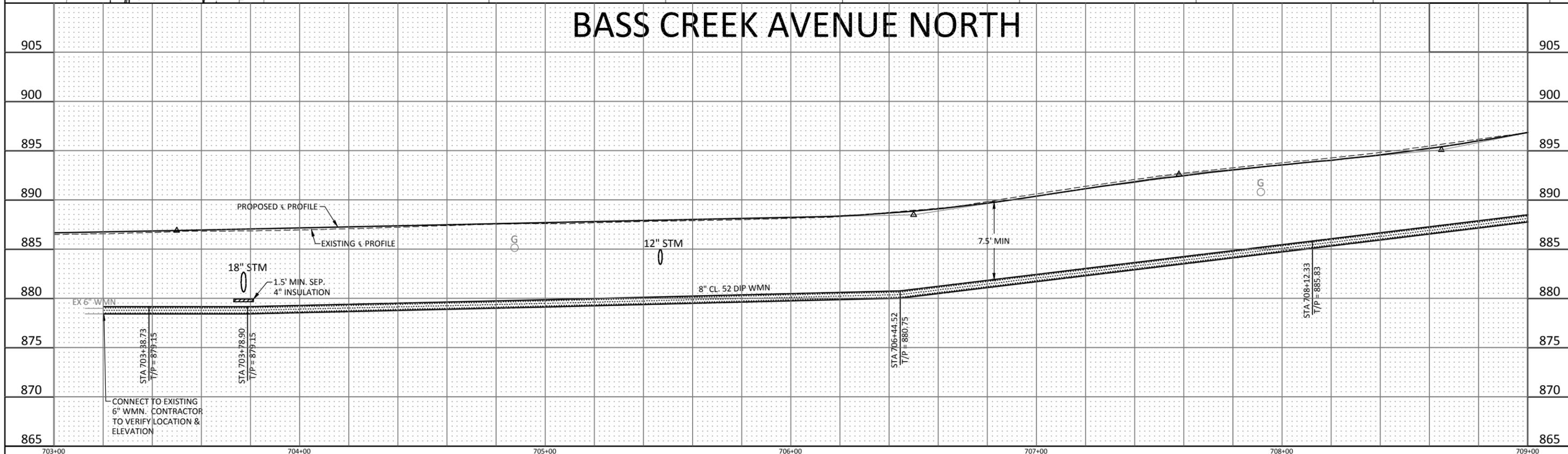
CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
WATERMAIN PLAN

3.09 OF 108

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BASS CREEK AVENUE NORTH



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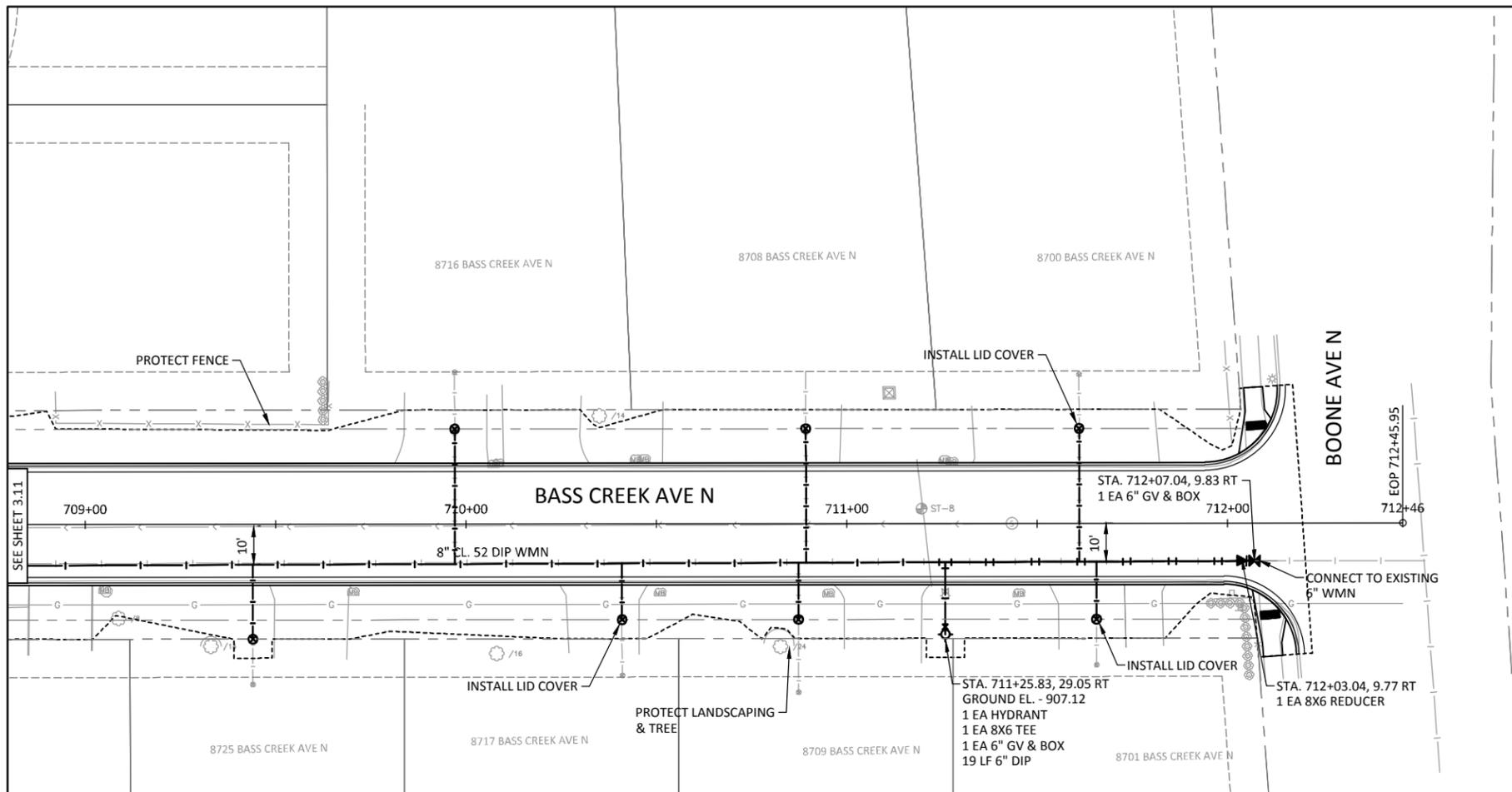
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DESIGNED: SAE
DRAWN: DDS
CHECKED: JZE

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CITY OF BROOKLYN PARK, MINNESOTA
2016 STREET RECONSTRUCTION PROJECT

3.11 OF 108
WATERMAIN PLAN

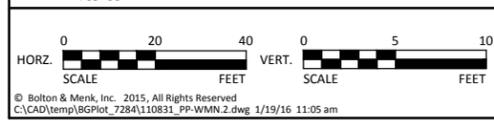
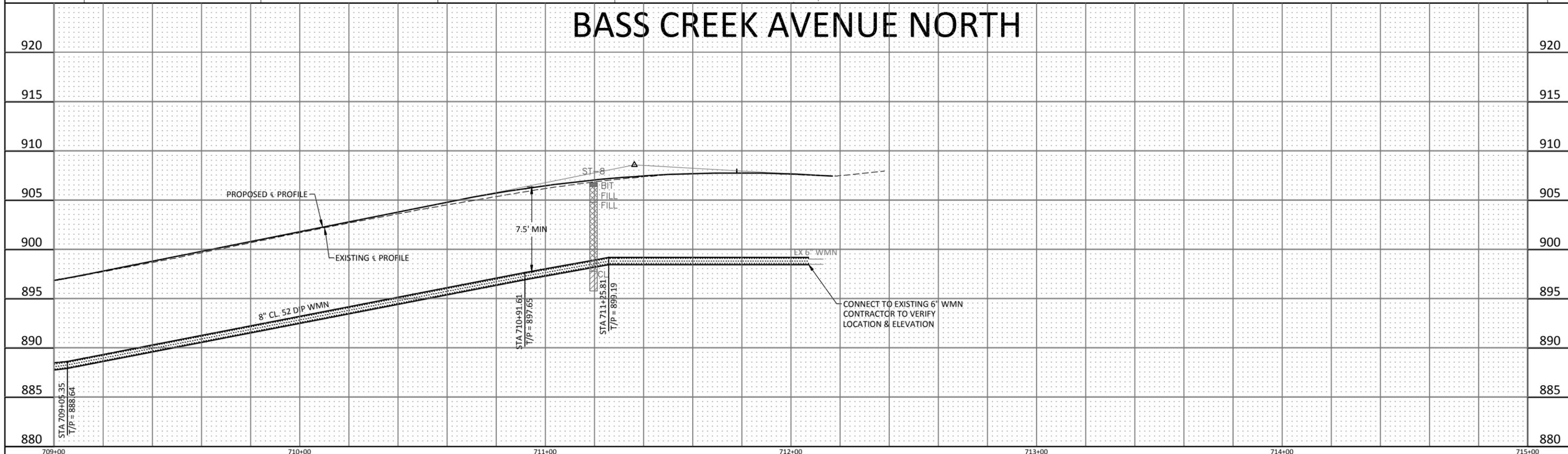


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NOTES:
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BASS CREEK AVENUE NORTH



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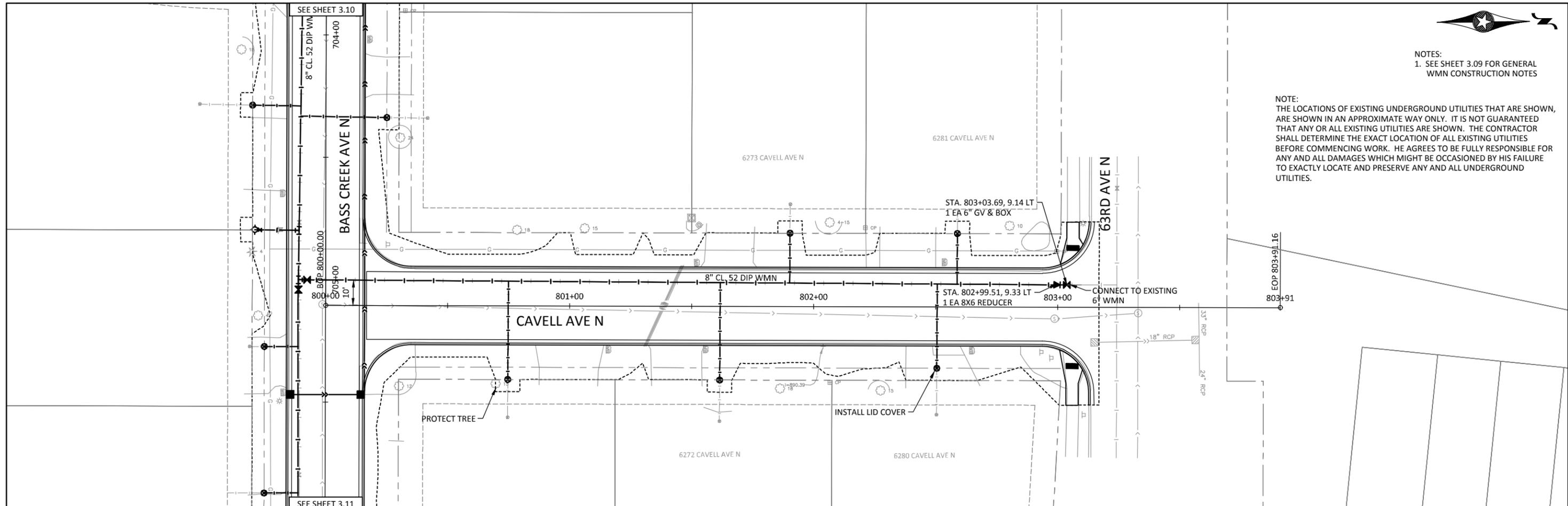
CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 WATERMAIN PLAN

3.12 OF 108

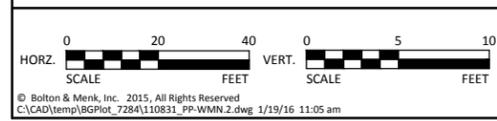
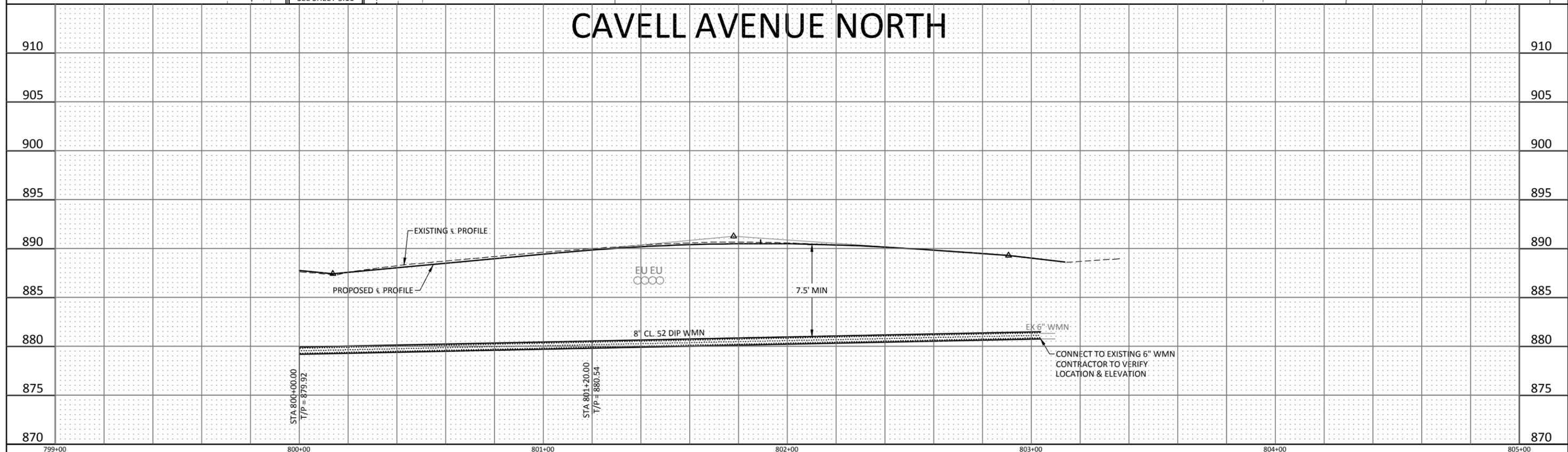


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CAVELL AVENUE NORTH

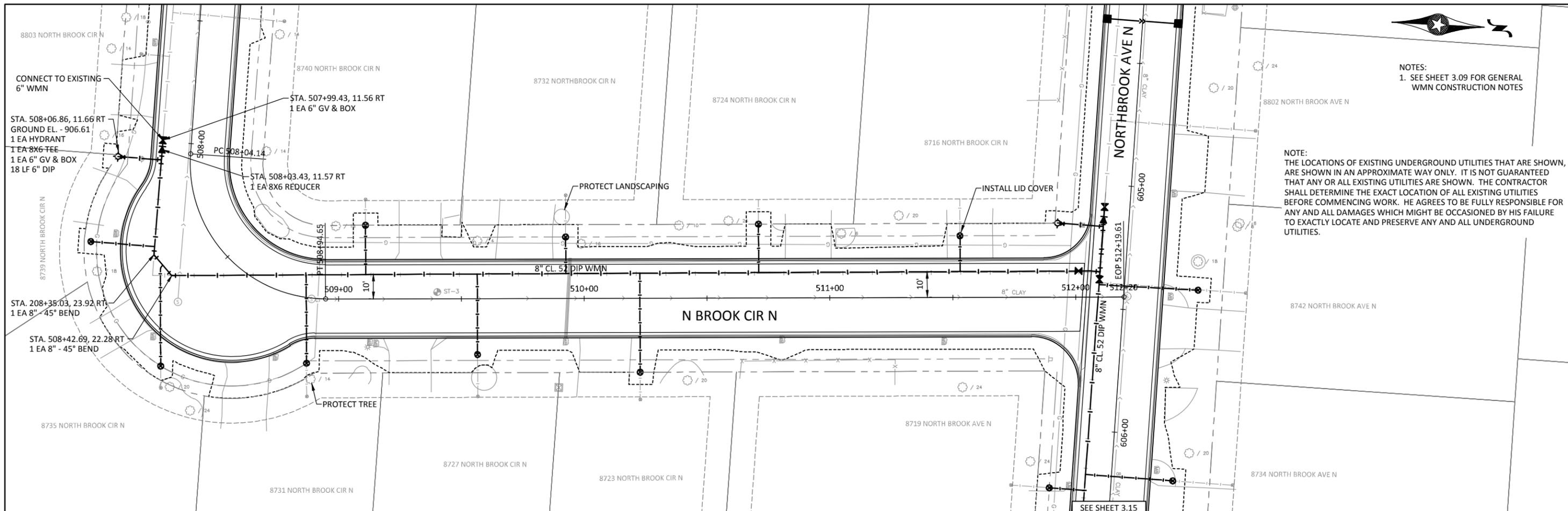


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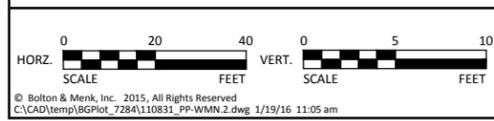
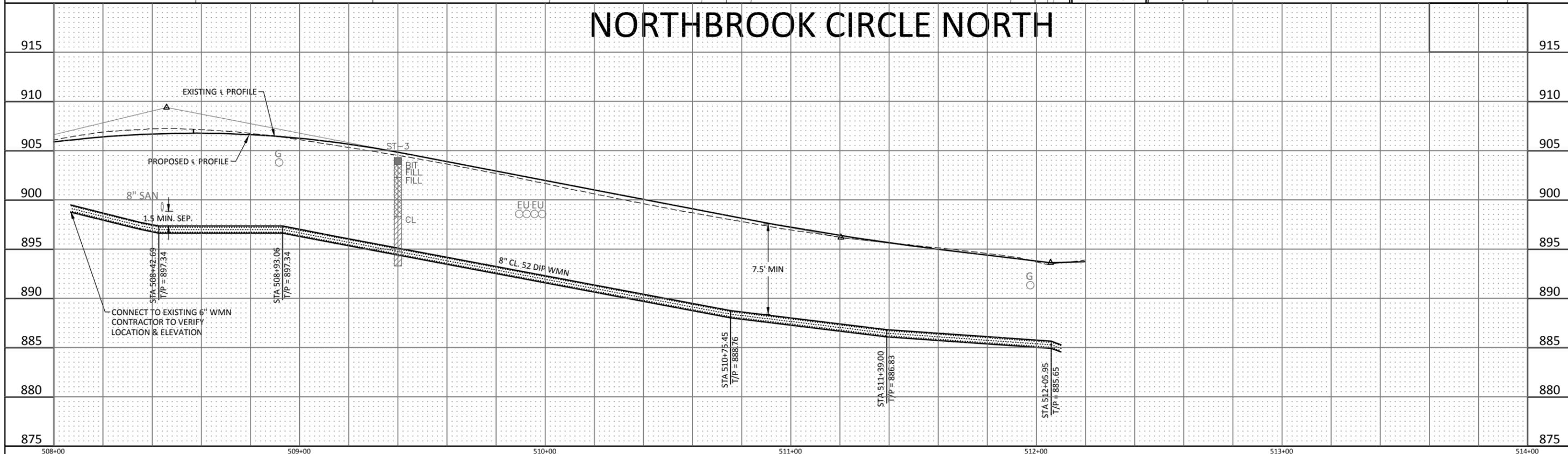
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NORTHBROOK CIRCLE NORTH



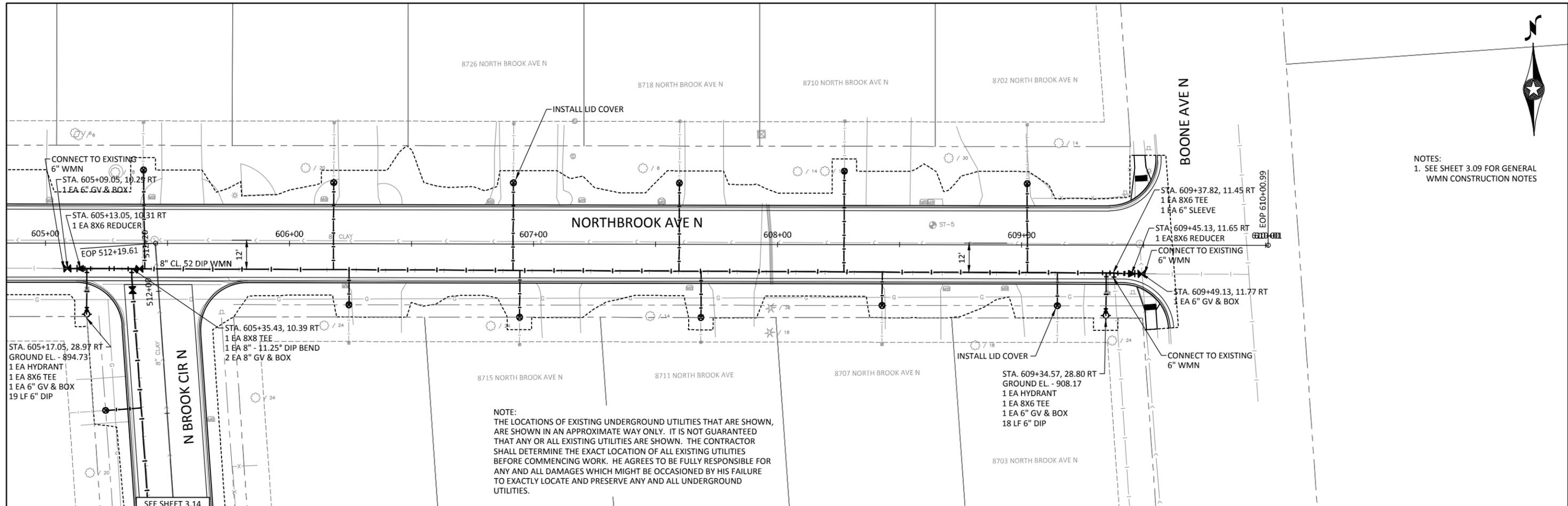
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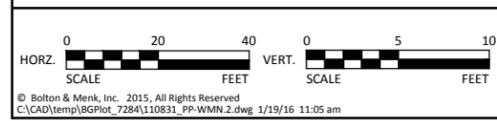
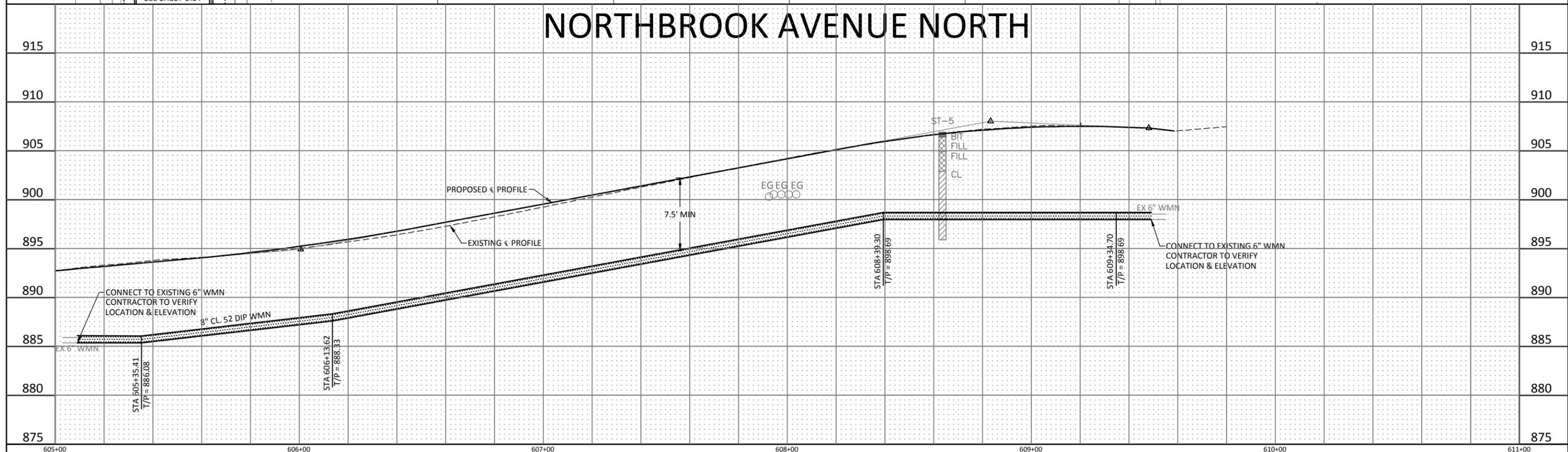
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WATERMAIN PLAN				OF 108



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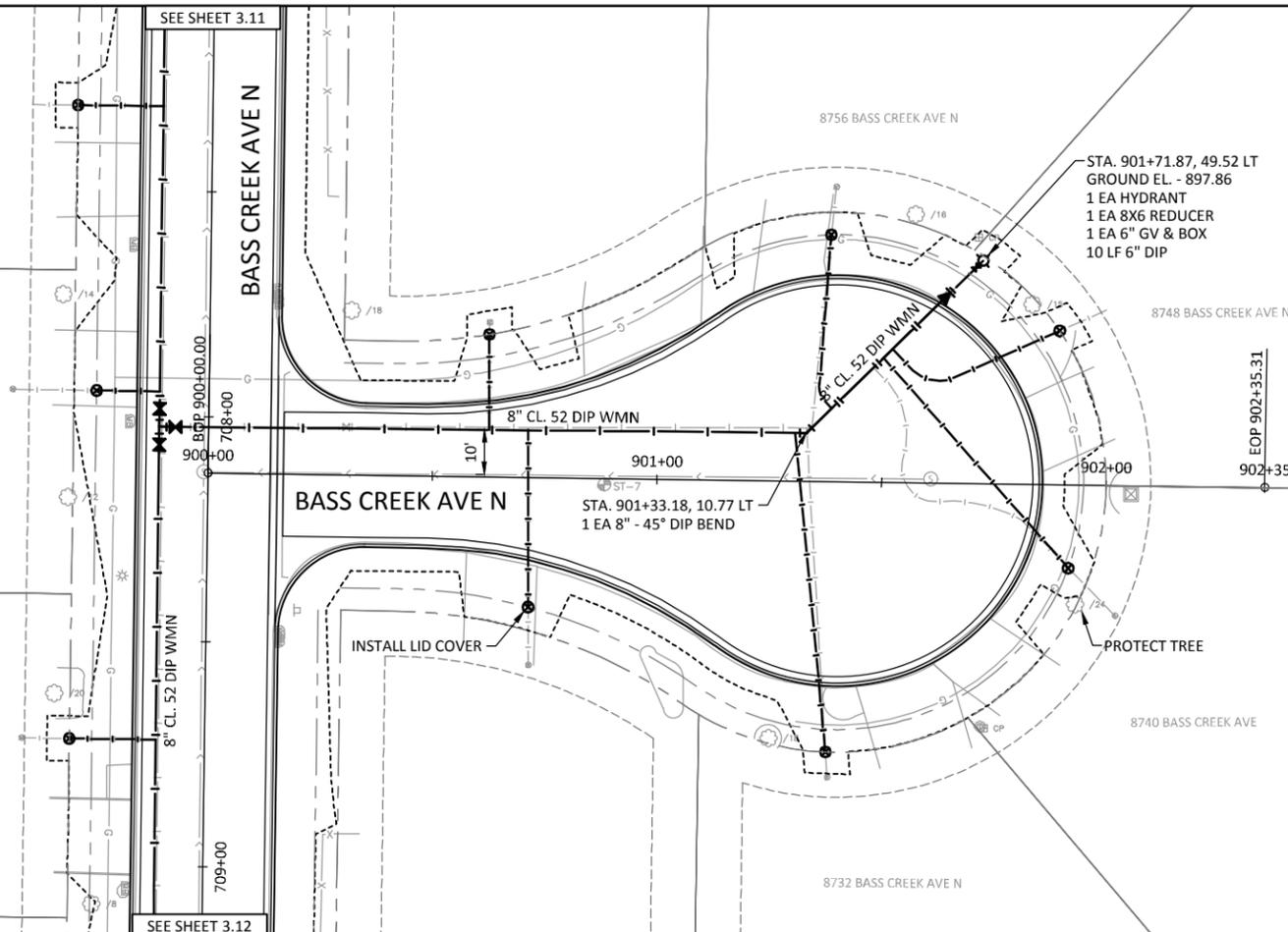
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WATERMAIN PLAN				

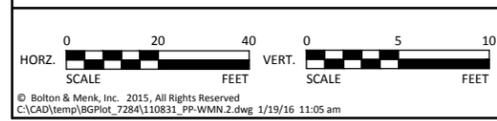
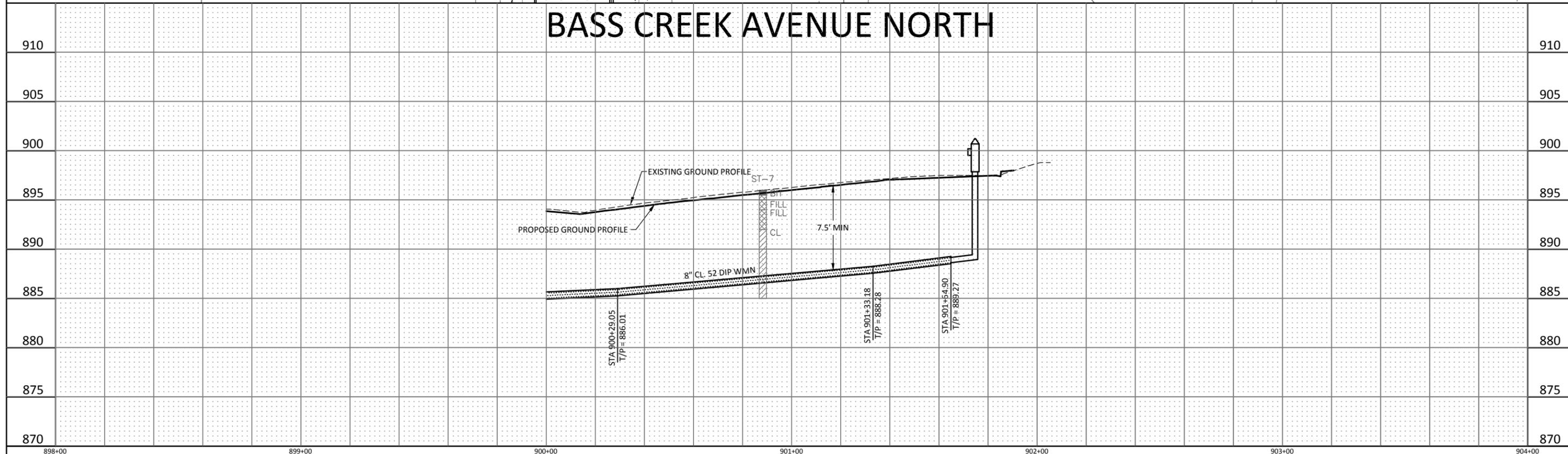


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BASS CREEK AVENUE NORTH



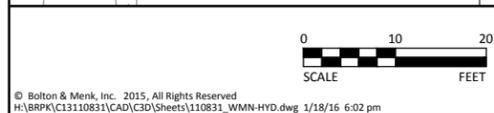
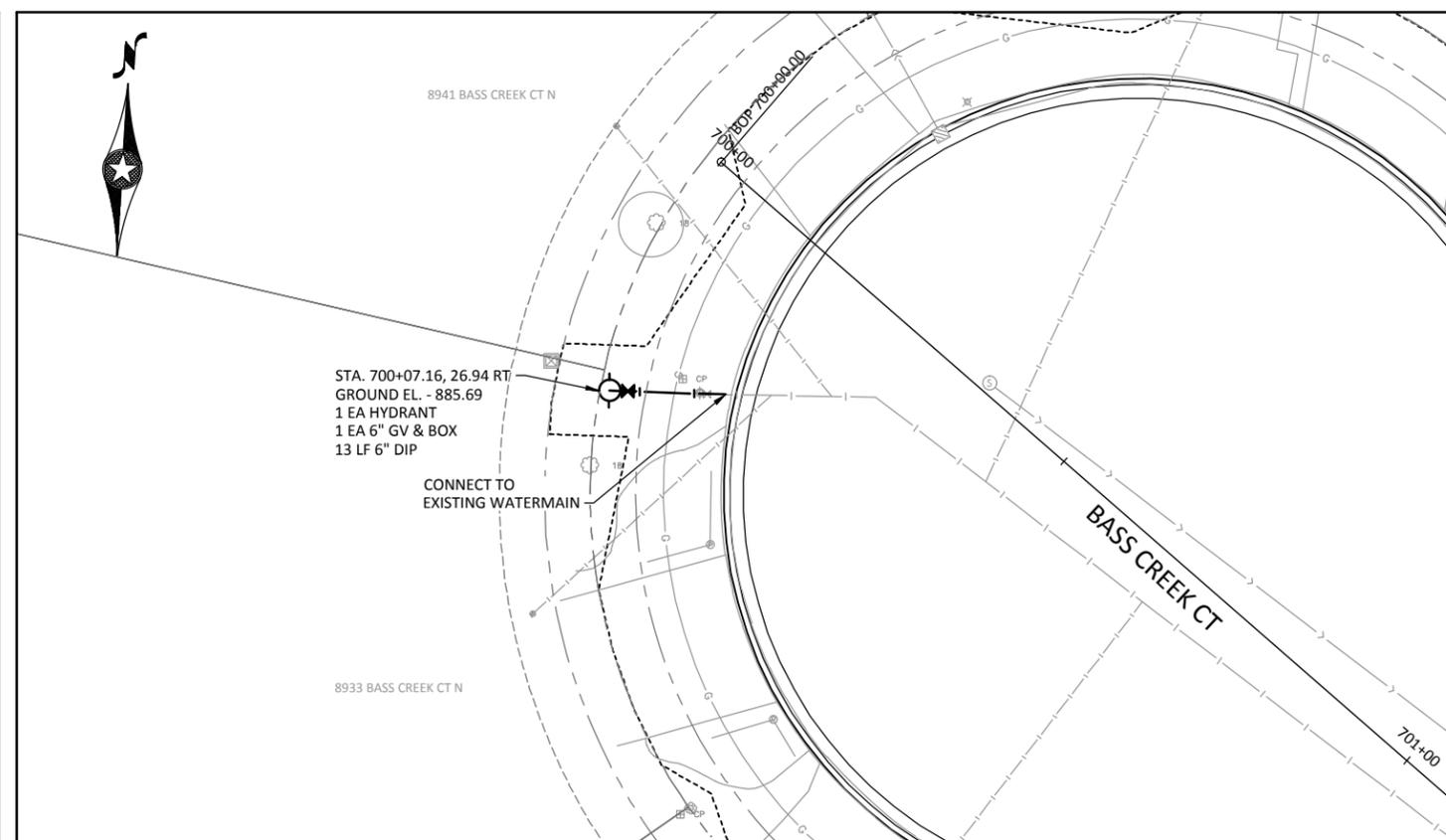
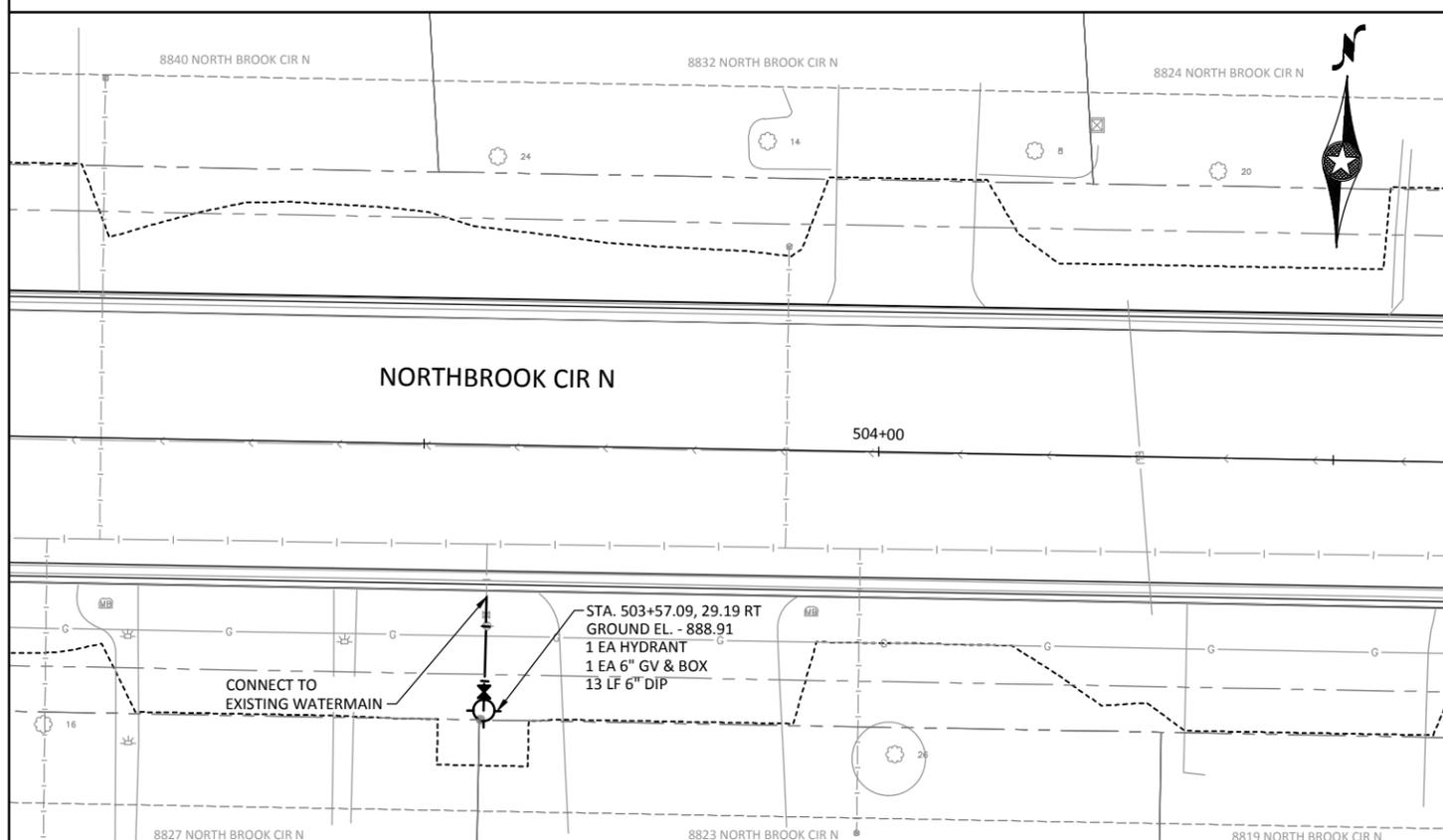
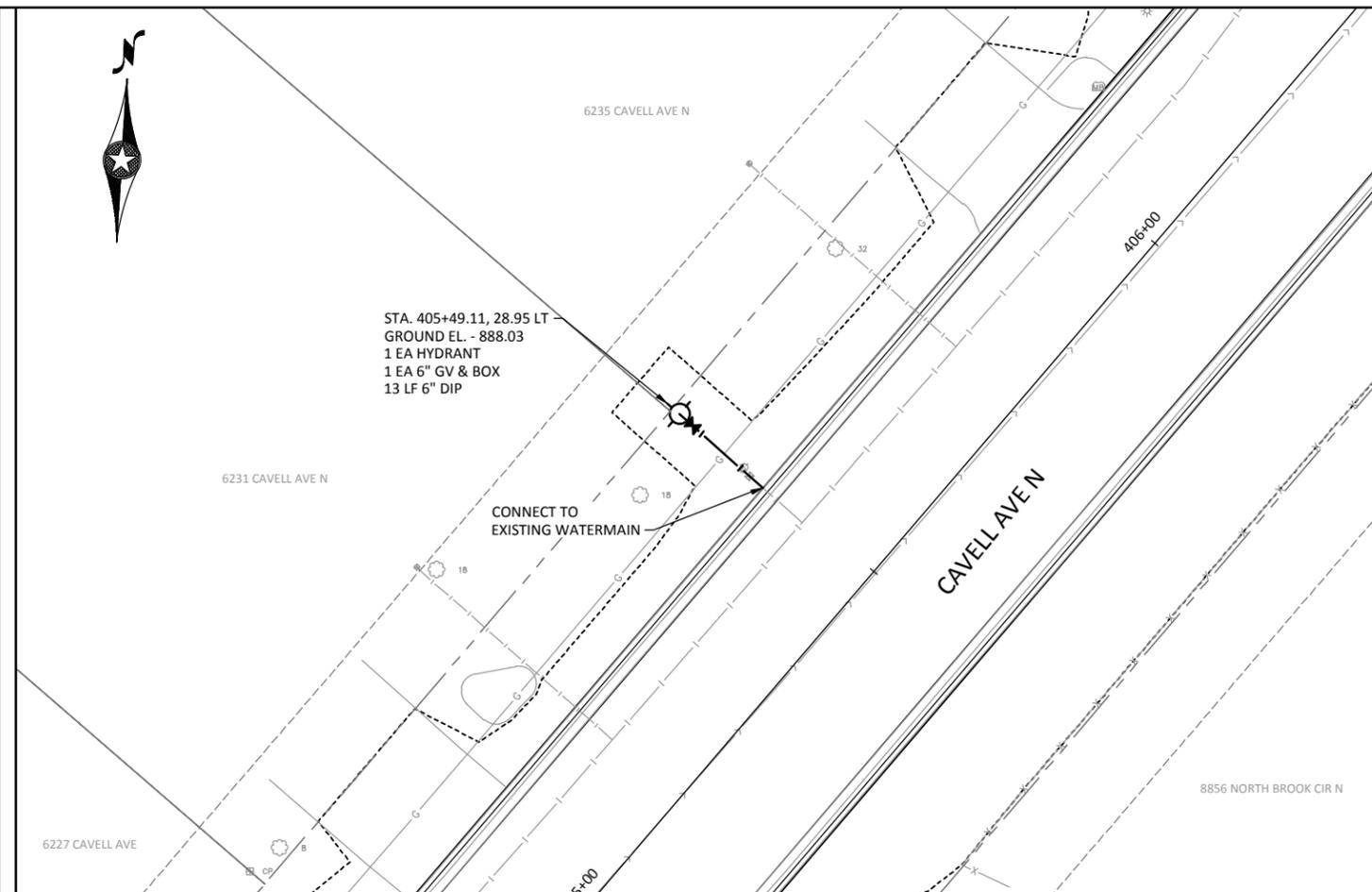
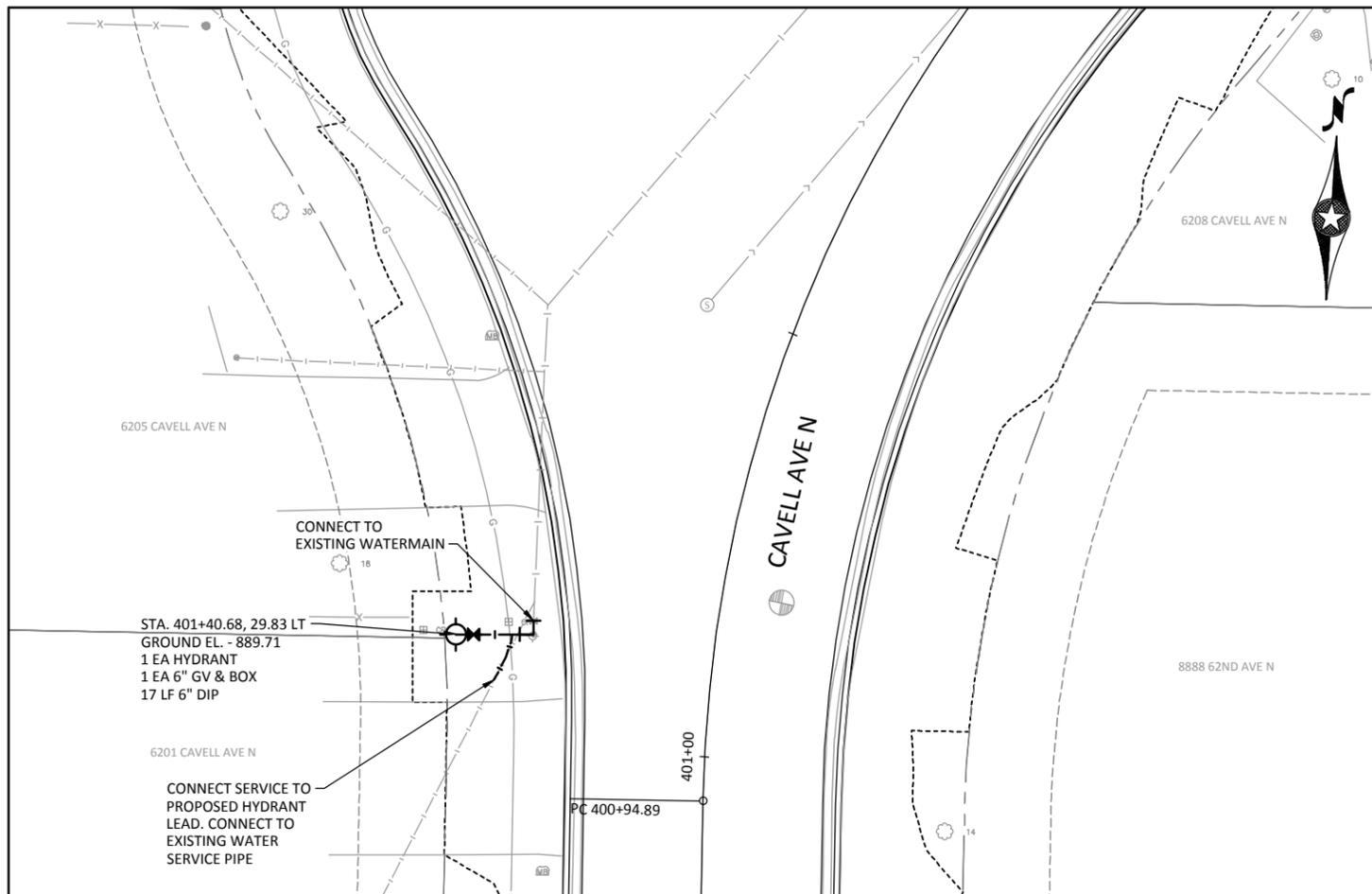
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 2016 STREET RECONSTRUCTION PROJECT
WATERMAIN PLAN

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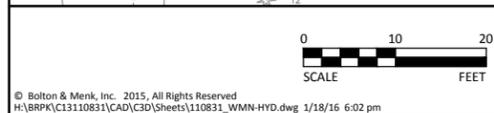
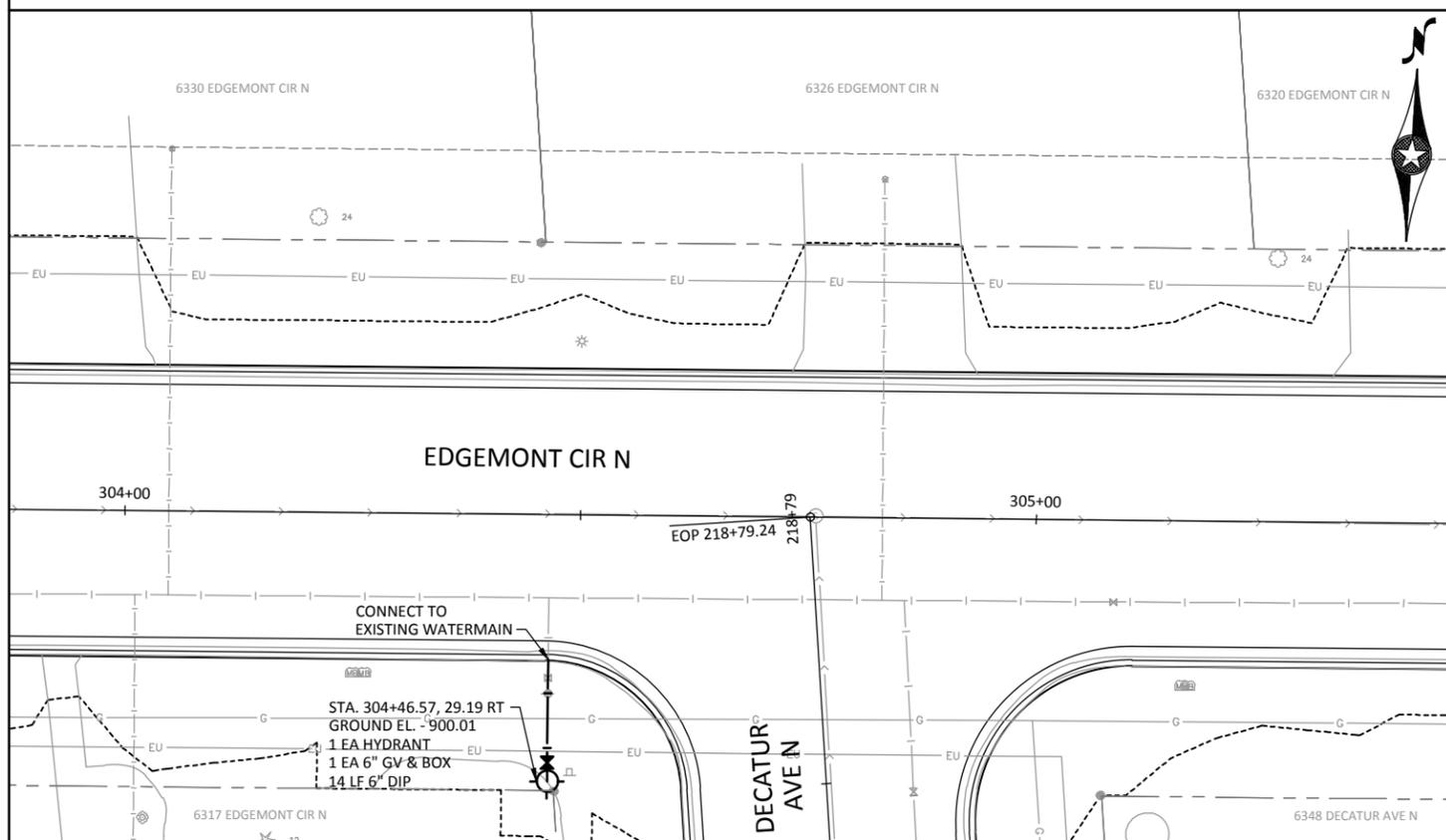
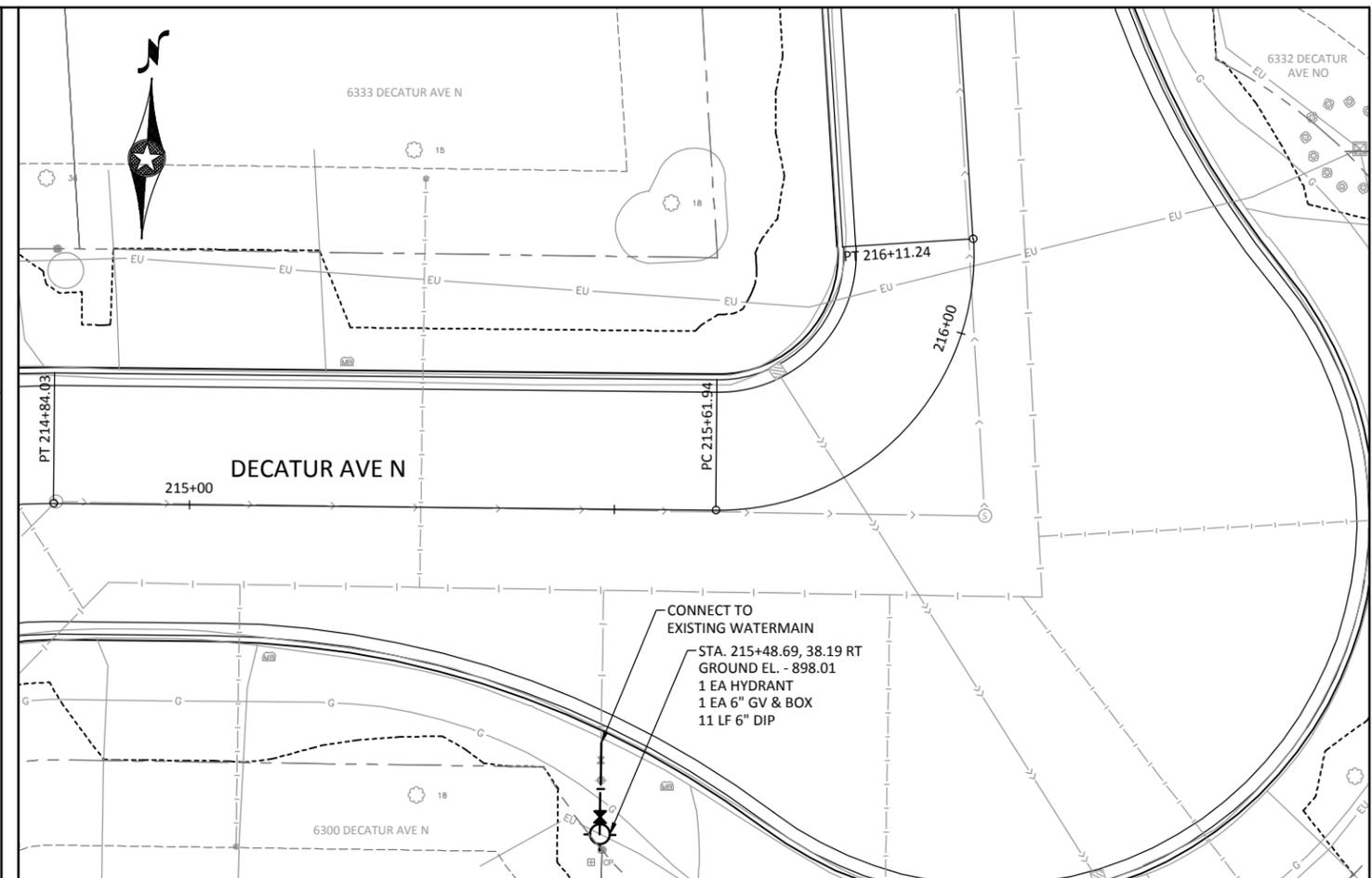
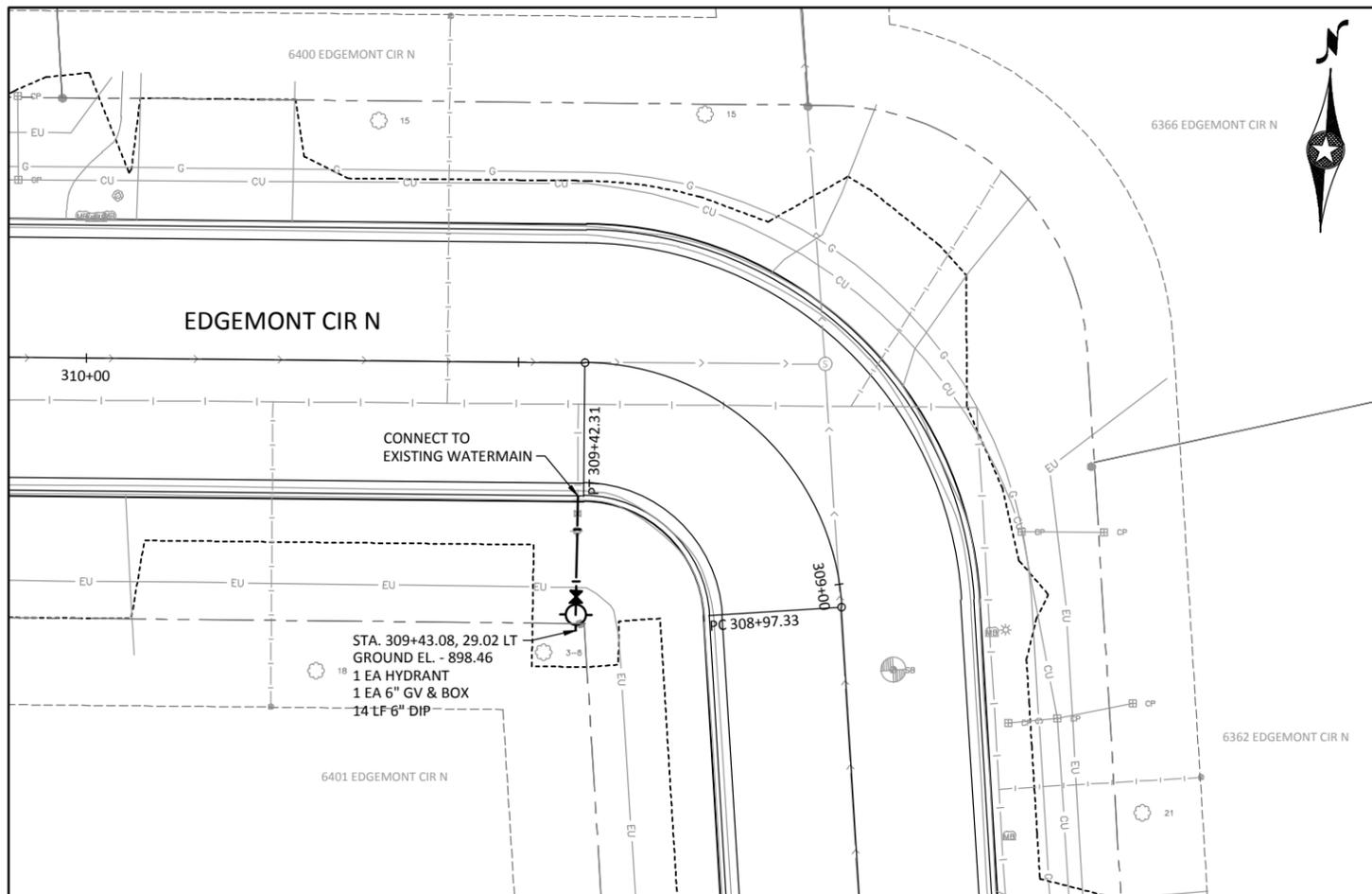
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CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
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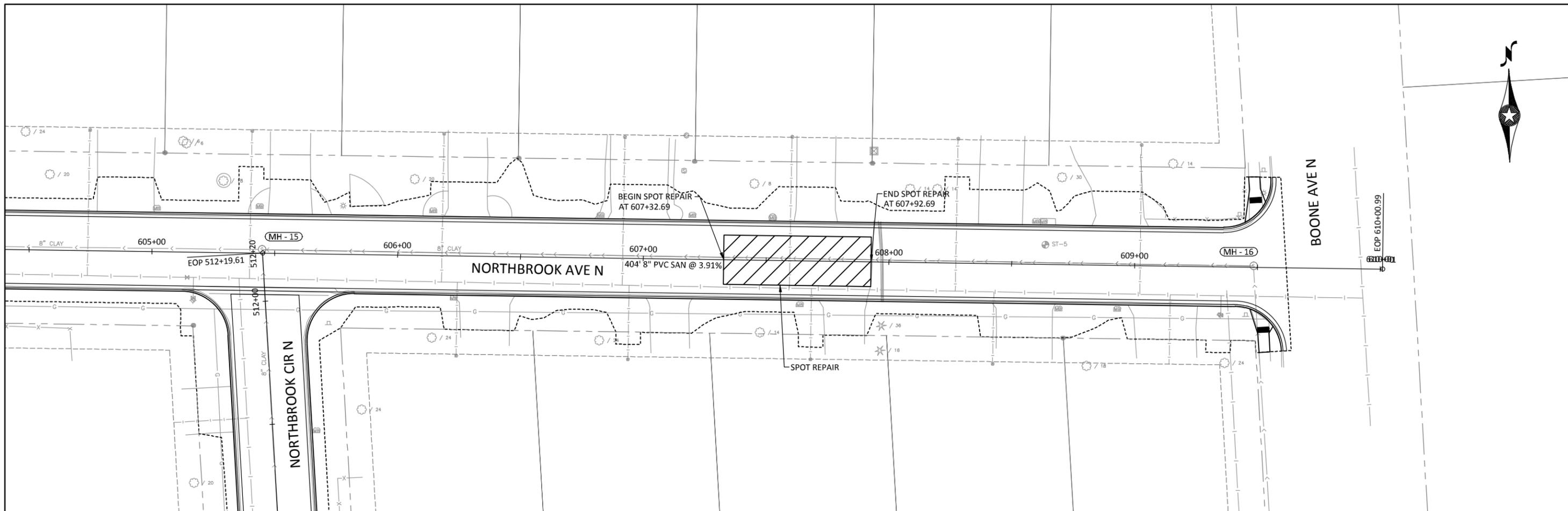
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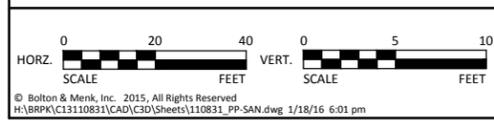
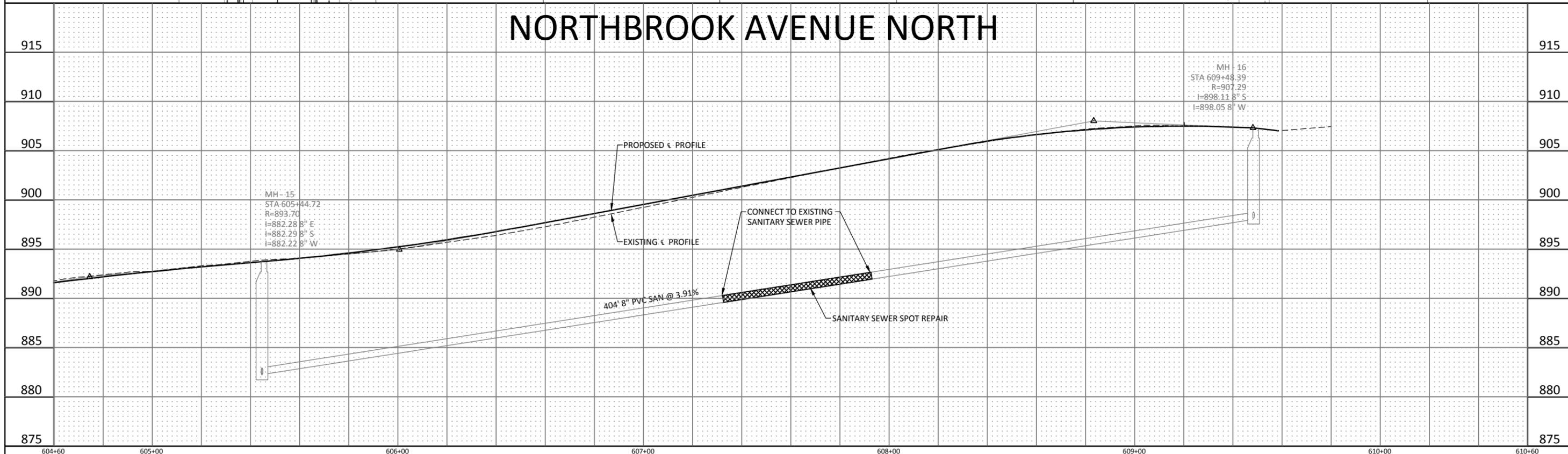
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CITY OF BROOKLYN PARK, MINNESOTA
2016 STREET RECONSTRUCTION PROJECT
WATERMAIN PLAN

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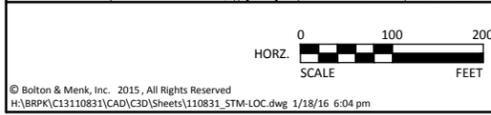
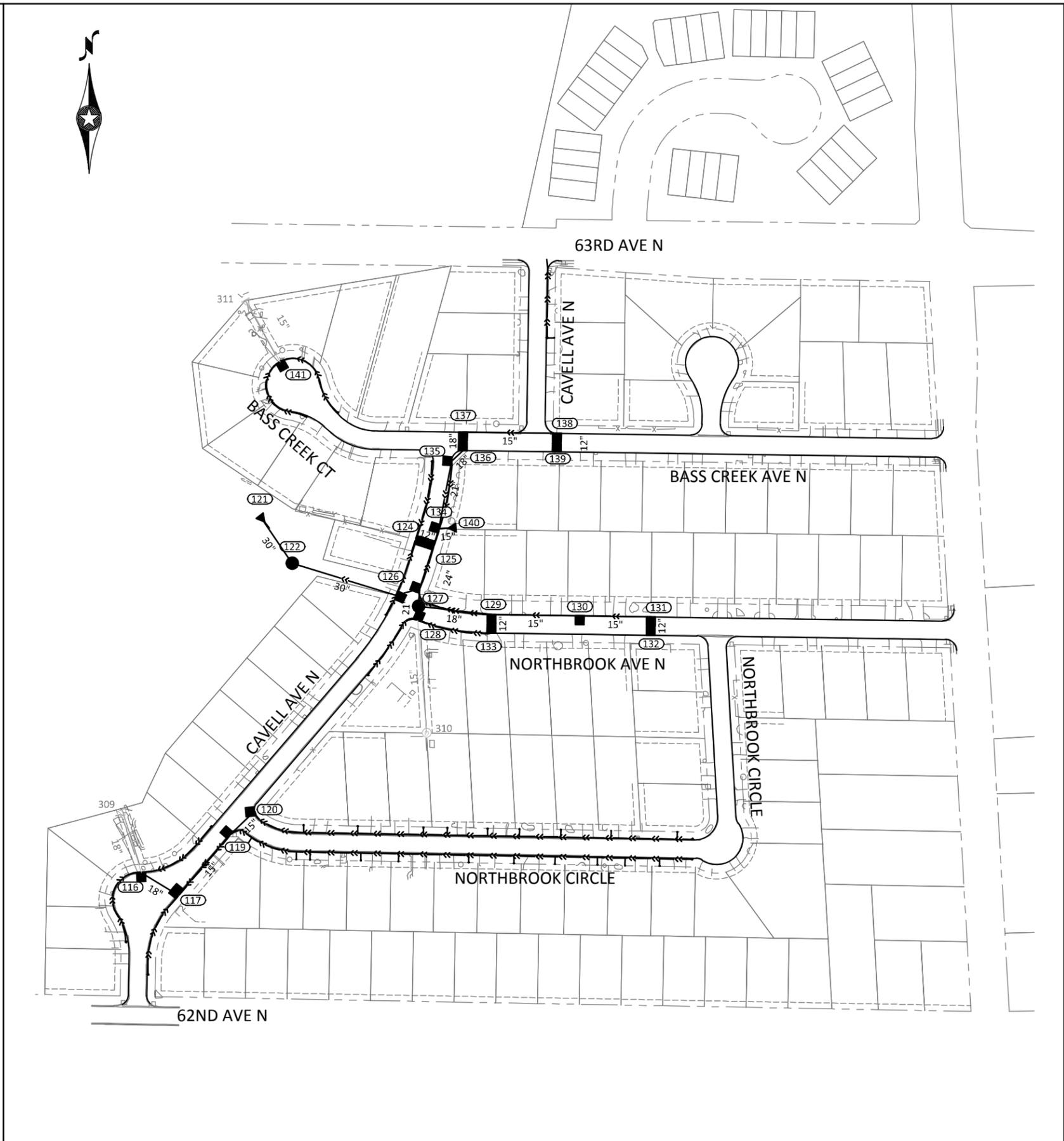
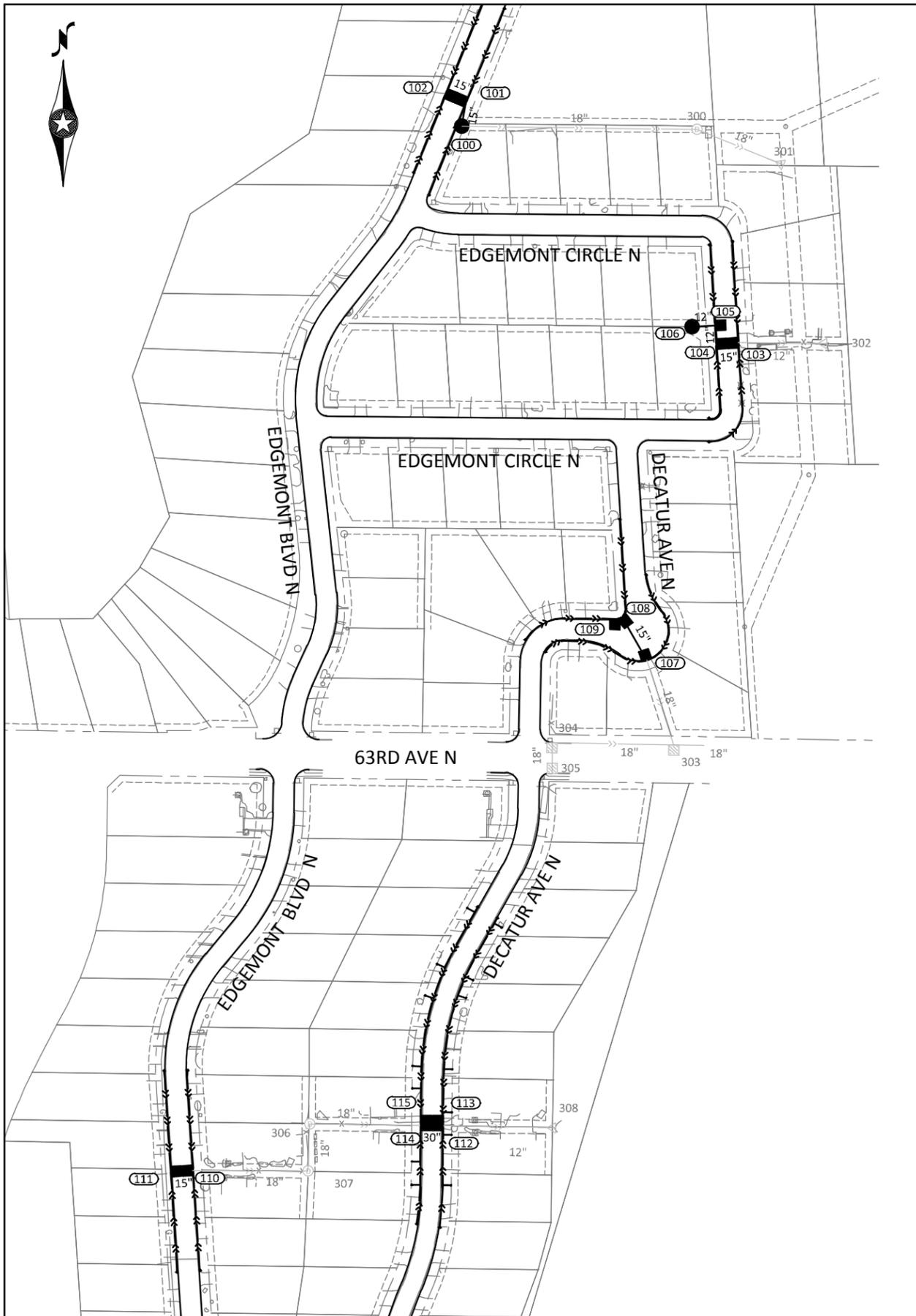
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 2016 STREET RECONSTRUCTION PROJECT
SANITARY SEWER PLAN
 604+60-610+60



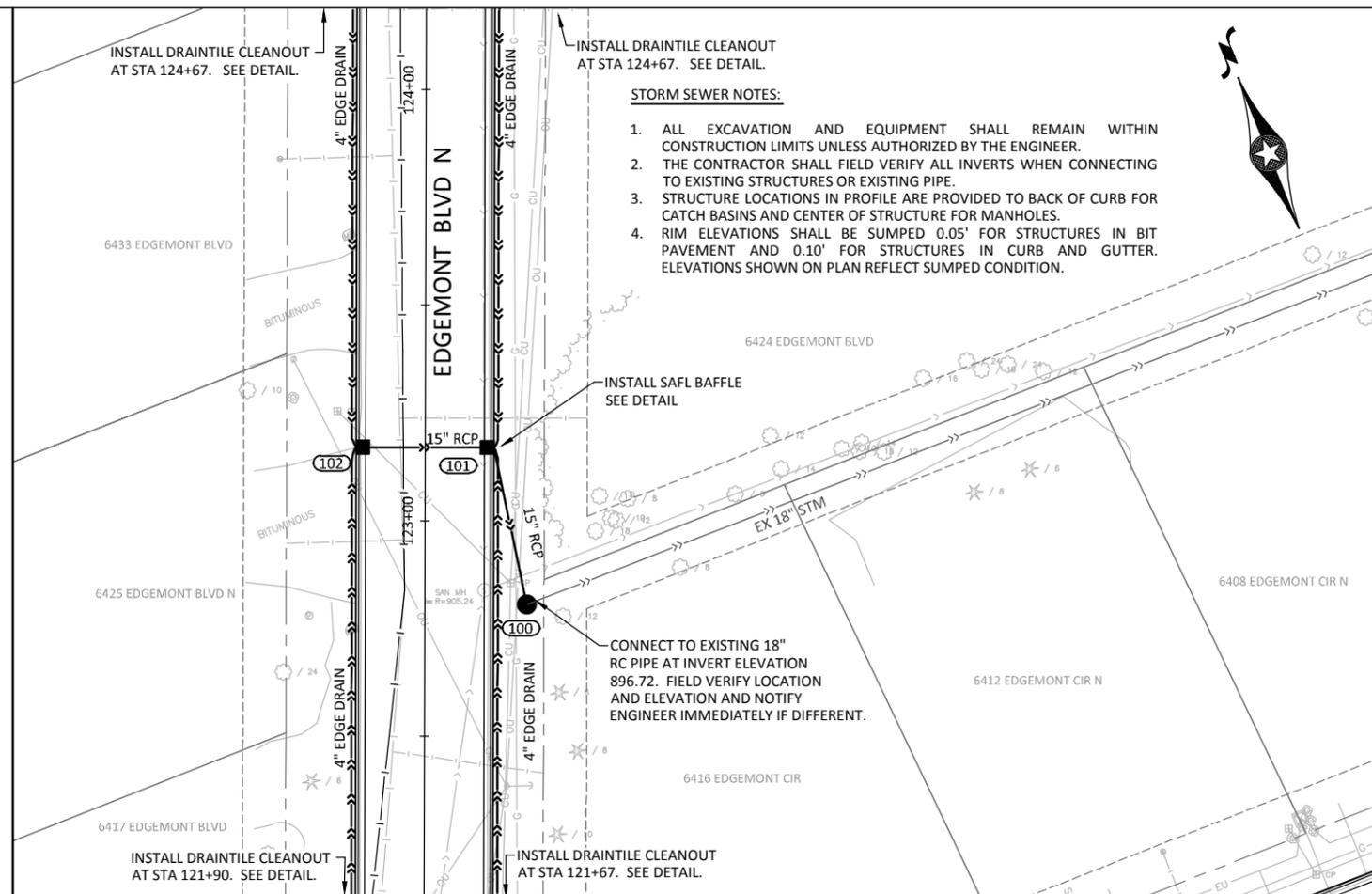
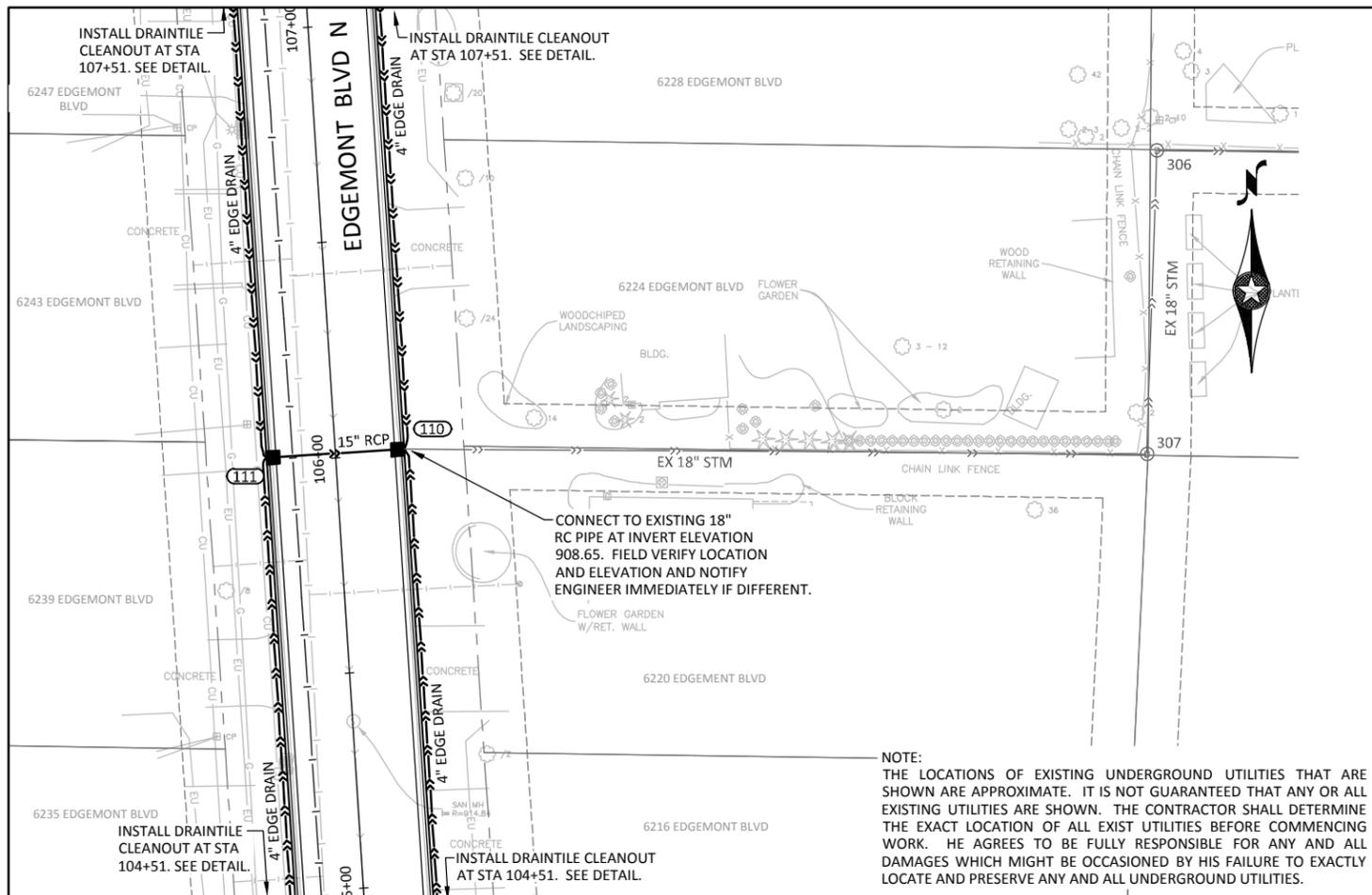
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Joshua Eckstein
 JOSHUA ECKSTEIN
 LIC. NO. 48224 DATE 01/15/2016

DESIGNED: KAF
 DRAWN: DDS
 CHECKED: JZE

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 Consulting Engineers & Surveyors
 MANKATO, MN FAIRMONT, MN SLEEPY EYE, MN BURNSVILLE, MN WILLMAR, MN
 CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN
 AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND

REV.	BY	DATE

CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 STORM SEWER LOCATION MAP



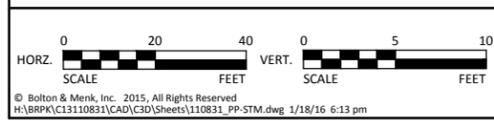
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EDGEMONT BLVD NORTH

EDGEMONT BLVD NORTH

930				930	920					920
925				925	915					915
920	106+01.00-16.00' L R=913.99 I=910.99 (4") DT I=910.49 (15") E	106+01.00-16.00' R R=913.99 I=910.99 (4") DT I=910.17 (15") W I=908.65 (18") E		920	910	123+17.03-16.00' L R=904.83 I=901.83 (4") DT I=901.33 (15") E	123+17.03-16.00' R R=904.83 SUMP=896.93 I=901.83 (4") DT I=900.93 (15") W I=900.93 (15") S	122+80.55-23.75' R R=906.00 I=899.07 (15") N I=896.72 (18") E		910
915				915	905					905
910	32' 15" RCP @ 1.00%	CONNECT TO EXISTING STORM PIPE		910	900	32' 15" RCP @ 1.25%	8" WMN	37' 15" RCP @ 5.00% GAS	CONNECT TO EXISTING STORM PIPE	900
905	8" WMN	EX 8" SAN	EX 18" STM	905	895					895
900				900	890					890
895				895	885					885
890				890	880					880



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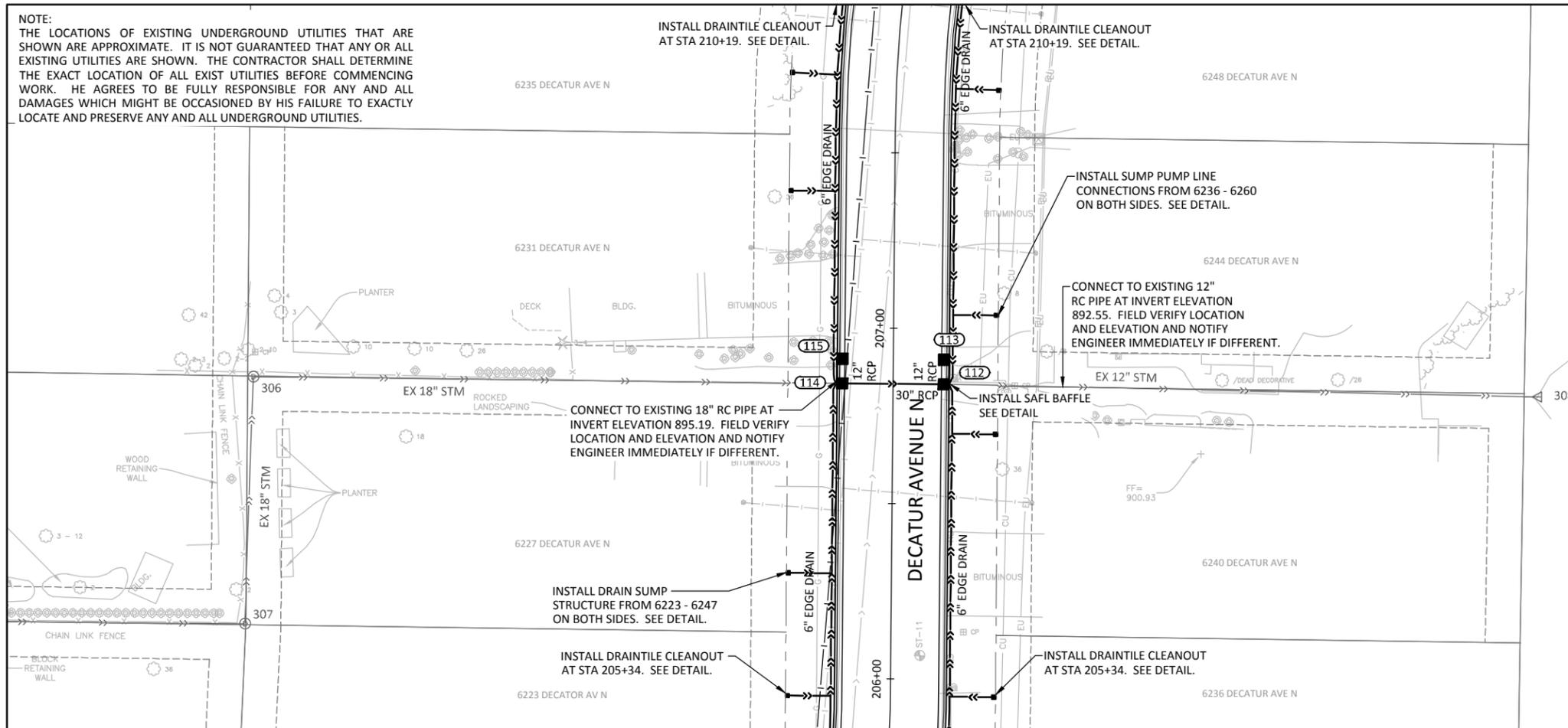
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CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 STORM SEWER PLAN - EDGEMONT BLVD N

B.22 OF 108

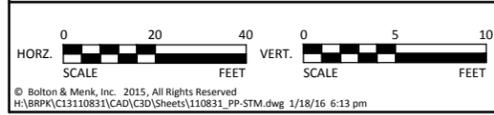
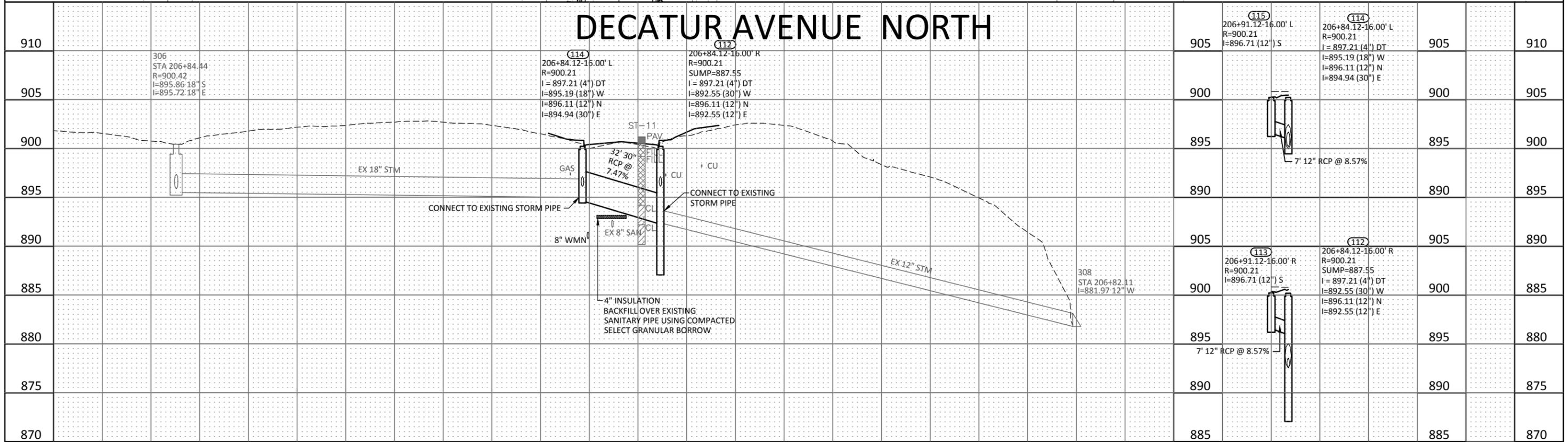
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DECATUR AVENUE NORTH



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JOSHUA ECKSTEIN

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DESIGNED: KAF

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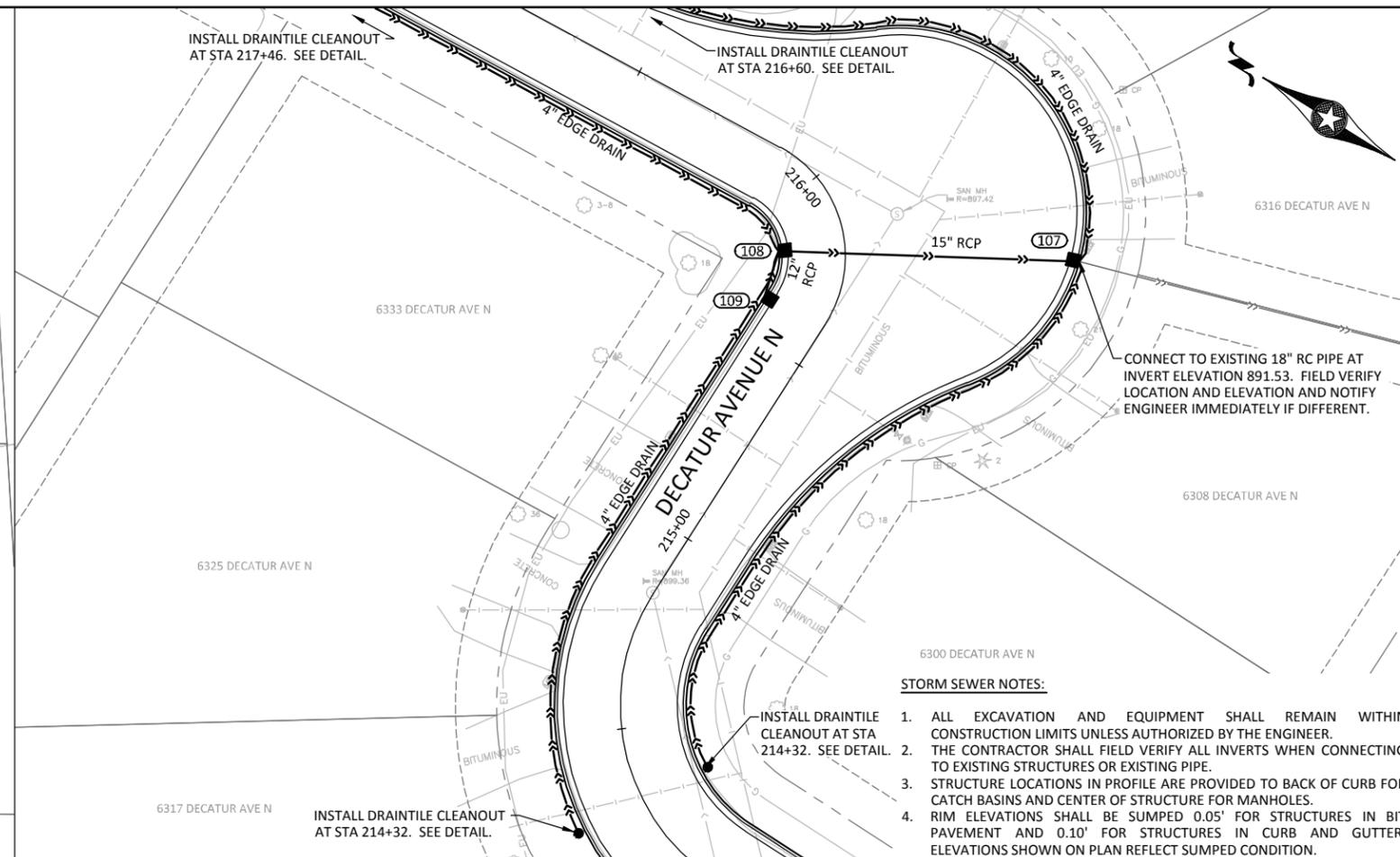
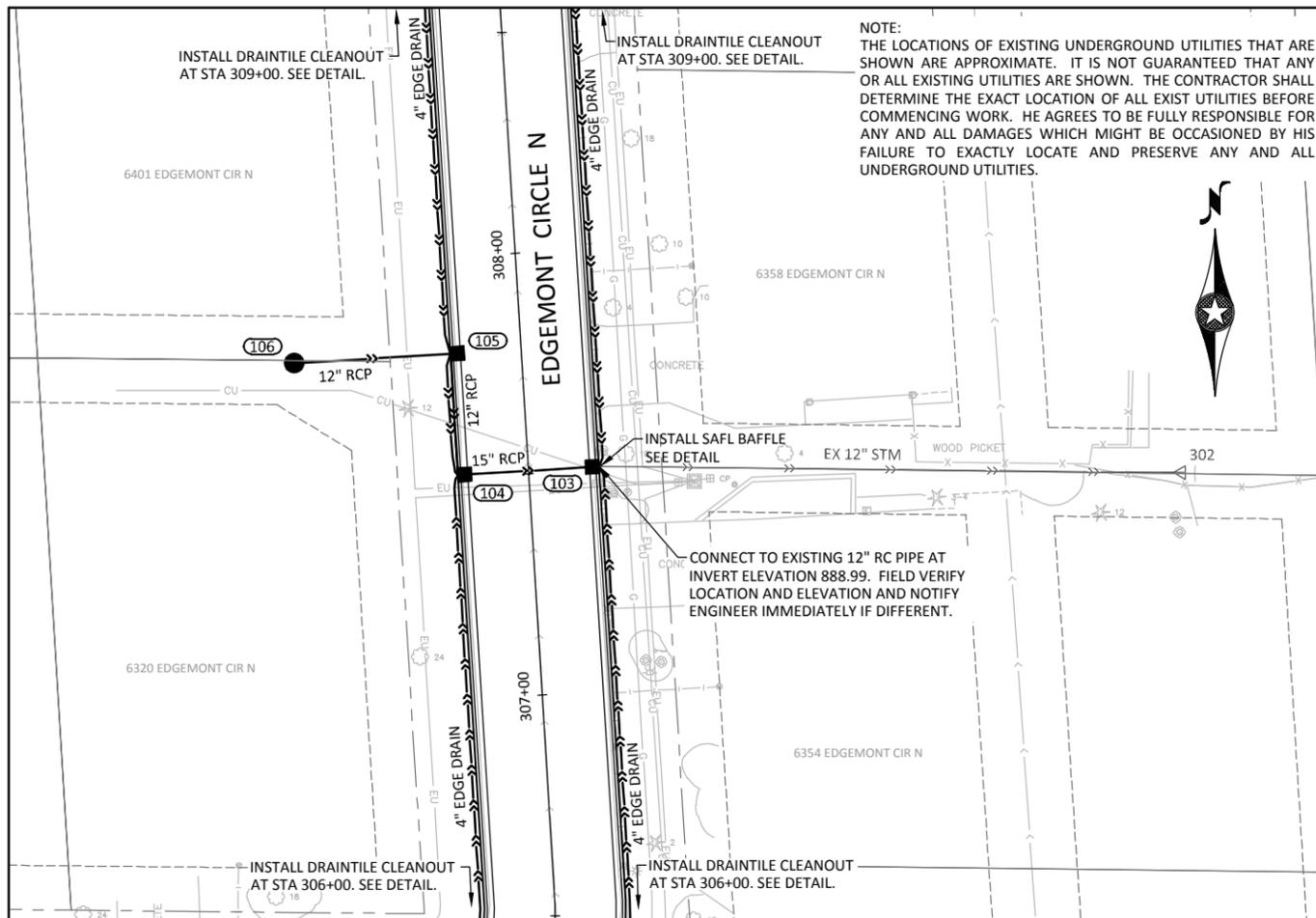
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REV.	BY	DATE

CITY OF BROOKLYN PARK, MINNESOTA
2016 STREET RECONSTRUCTION PROJECT

STORM SEWER PLAN - DECATUR AVENUE N

B.23 OF 108



EDGEMONT CIRCLE NORTH				DECATUR AVENUE NORTH				
910				910	910			
905				905	905			
900	(106) 307+78.23-51.59' L R=895.63 I=892.13 (12") E	(105) 307+78.23-16.00' L R=894.16 I=891.16 (4") DT I=889.83 (12") W I=889.83 (12") S	(104) 307+50.75-16.00' L R=894.07 I=891.07 (4") DT I=889.44 (12") N I=889.44 (15") E	(103) 307+50.75-15.00' R R=894.07 SUMP=884.99 I=891.07 (4") DT I=888.99 (15") W I=888.99 (12") E	900	900		
895								
890								
885								
880								
875								
870								

905				905	905		
900				900	900		
895				895	895		
890				890	890		
885				885	885		
880				880	880		
875				875	875		
870				870	870		

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REV.	BY	DATE

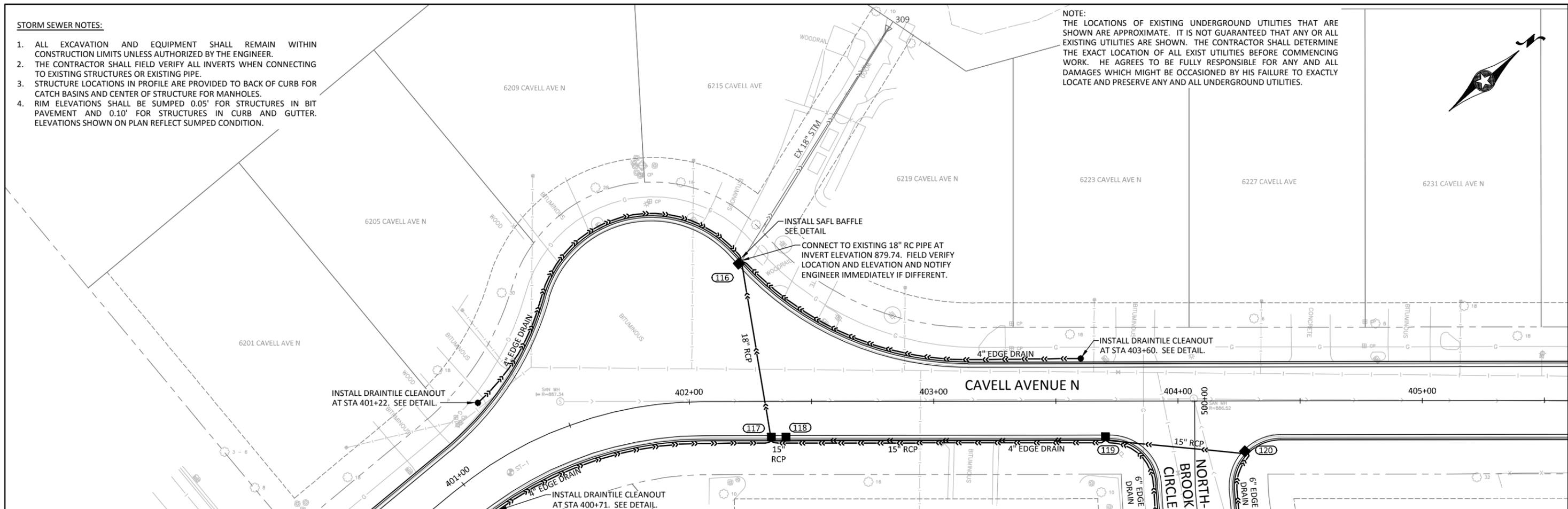
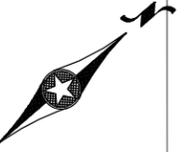
CITY OF BROOKLYN PARK, MINNESOTA
2016 STREET RECONSTRUCTION PROJECT
STORM SEWER PLAN - EDGEMONT CIRCLE N

B.24 OF 108

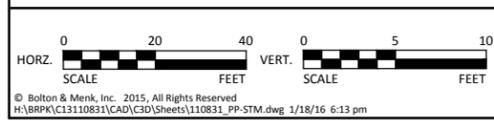
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CAVELL AVENUE NORTH				CAVELL AVENUE NORTH						
905				905	905		905			
900				900	900		900			
895				895	895		895			
890		<p>116 402+21.44-57.37' L R=884.84 SUMP=874.74 I=881.84 (4") DT I=879.74 (18") SE I=879.74 (18") N</p>	<p>117 402+33.59-16.00' R R=885.38 I=882.38 (4") DT I=880.37 (15") NE I=880.37 (18") NW</p>	890	890	<p>118 402+39.59-16.00' R R=885.39 I=880.40 (15") NE I=880.40 (15") SW</p>	<p>119 403+70.35-16.00' R R=886.03 I=883.03 (4") DT I=881.05 (15") NE I=881.05 (15") SW</p>	<p>120 404+28.47-21.68' R R=885.97 I=882.97 (4") DT I=881.97 (15") SW</p>	890	890
885				885	885		885			
880	<p>309 STA 402+81.92 I=877.90 18" S</p>	<p>74' 18" RCP @ 0.85%</p>	<p>131' 15" RCP @ 0.50%</p>	880	880	<p>58' 15" RCP @ 1.58%</p>	880			
875		<p>EX 6" WMN EX 8" SAN 4" INSULATION</p>	<p>CL 6" 15" RCP @ 0.50% WATER SERVICE 4" INSULATION</p>	875	875	<p>EX 6" WMN EX 8" SAN 4" INSULATION</p>	875			
870				870	870		870			
865				865	865		865			



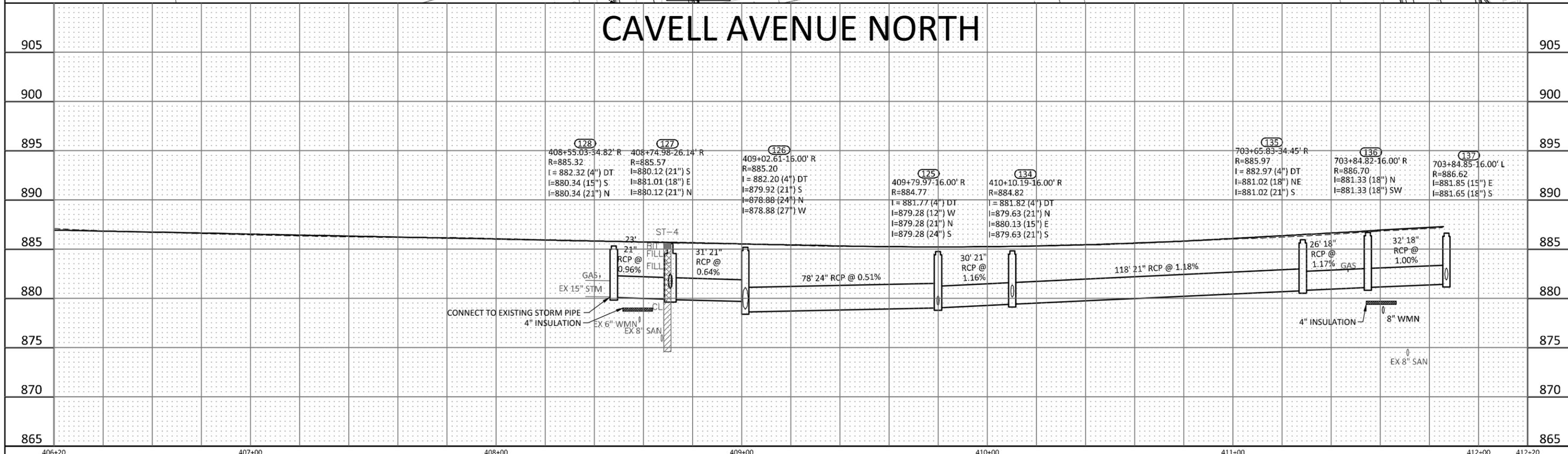
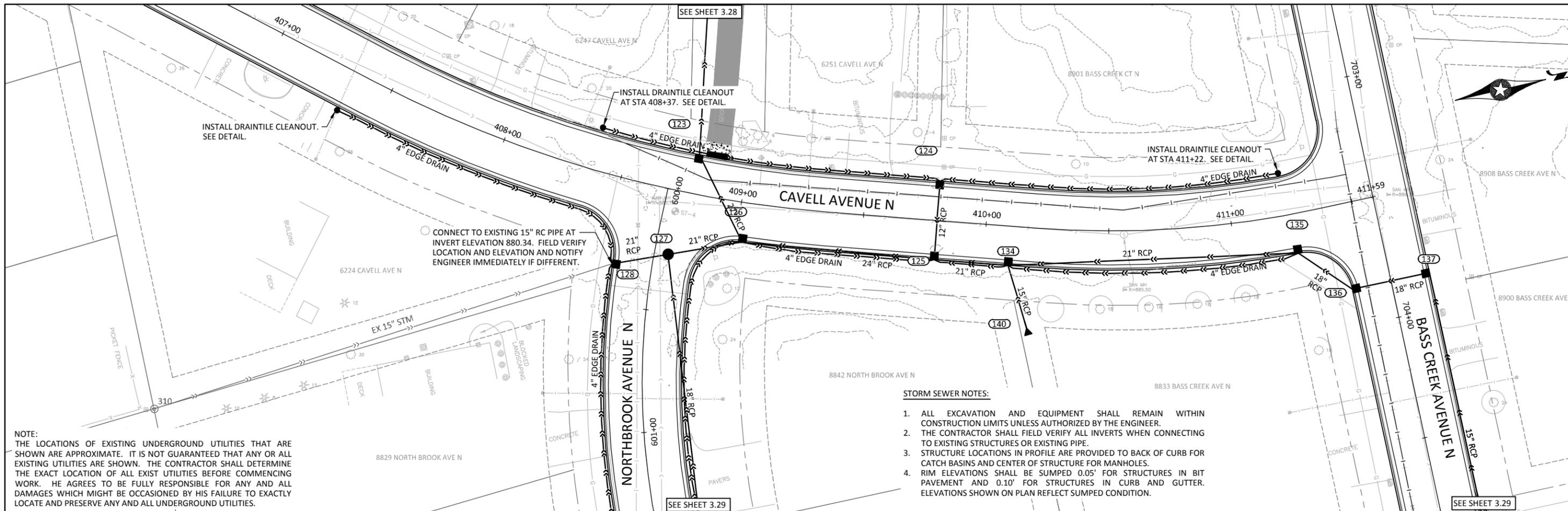
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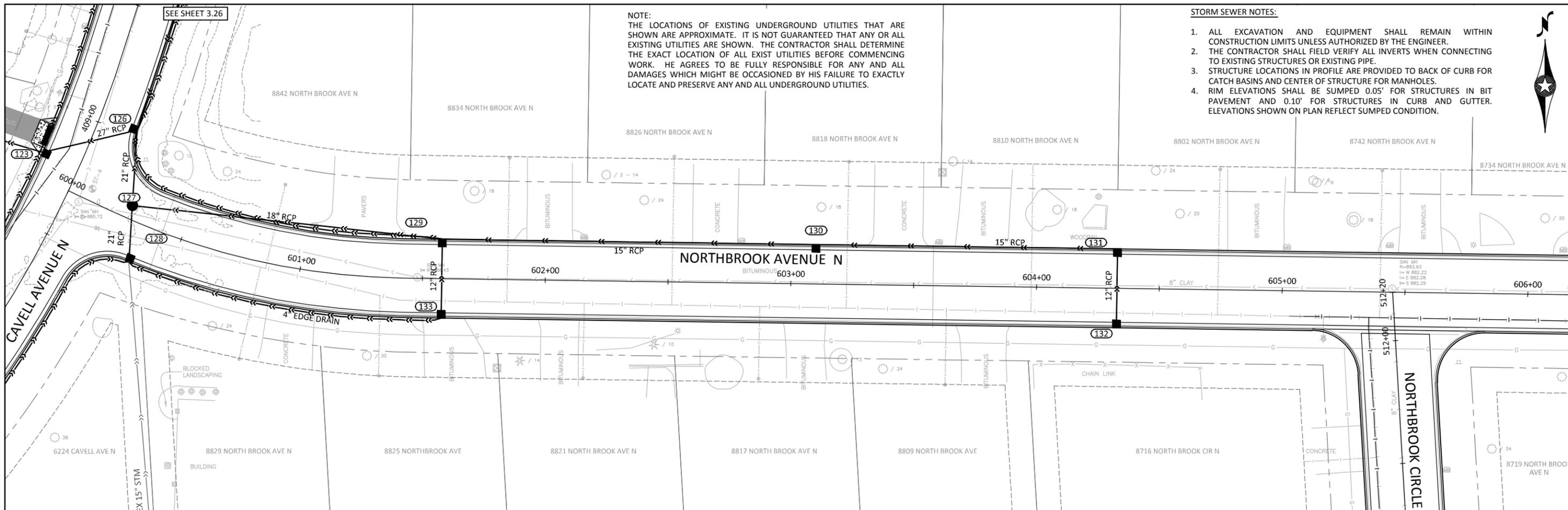
JOSHUA ECKSTEIN
LIC. NO. 48224 DATE 01/15/2016

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CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN
AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND

DESIGNED: KAF
DRAWN: DDS
CHECKED: JZE

REV.	BY	DATE	CITY OF BROOKLYN PARK, MINNESOTA	B.25 OF 108
			2016 STREET RECONSTRUCTION PROJECT	
			STORM SEWER PLAN - CAVELL AVENUE N	





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NORTHBROOK AVENUE NORTH

905		905	890	(129) 601+57.84-16.00' L R=886.28 I=883.28 (4") DT I=882.28 (15") E I=882.46 (12") S I=882.28 (18") W	890
900		900	885	(131) 604+32.74-16.00' L R=890.18 I=886.36 (12") S I=886.18 (15") W	885
895	(127) 408+74.98-26.14' R R=885.57 I=882.57 (4") DT I=880.12 (21") S I=881.01 (18") E I=880.12 (21") N	895	880	(129) 601+57.84-16.00' L R=886.28 I=883.28 (4") DT I=882.28 (15") E I=882.46 (12") S I=882.28 (18") W	880
890		890	875	(130) 603+10.00-15.00' L R=887.25 I=883.75 (15") E I=883.75 (15") W	875
885	ST-4 BIT FILL FILL CL	885	875	123' 15" RCP @ 1.98%	875
880	127' 18" RCP @ 1.00%	880	895	(131) 604+32.74-16.00' L R=890.18 I=886.36 (12") S I=886.18 (15") W	895
875	4" INSULATION WATER SERVICE WATER SERVICE WATER SERVICE WATER SERVICE WATER SERVICE	875	890	(132) 604+32.74-16.00' R R=890.18 I=886.68 (12") N	890
870		870	885	32' 12" RCP @ 1.00%	885
865		865	880	EX 8" SAN EX 6" WMN	880

0 20 40
 HORZ. SCALE FEET

0 5 10
 VERT. SCALE FEET

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Brooklyn Park
 Unique. United. Undiscovered.

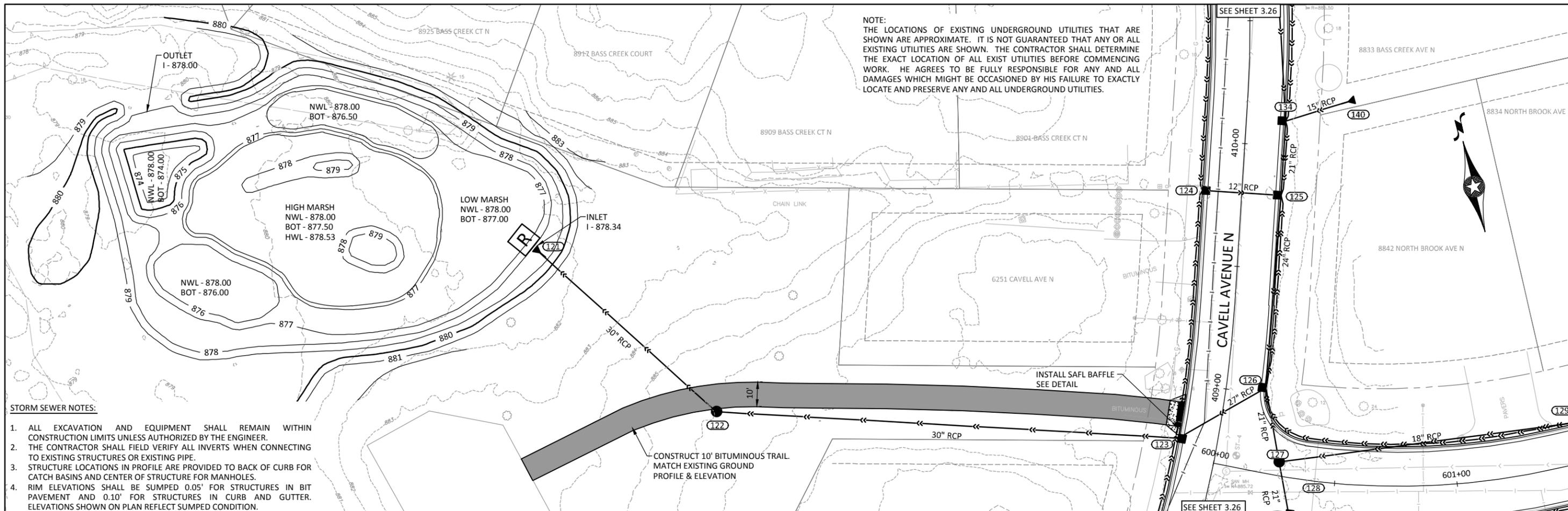
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CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 STORM SEWER PLAN - NORTHBROOK AVE N



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CAVELL AVENUE NORTH											
900										890	900
895										885	895
890			(122)							880	890
885										875	885
880										880	880
875										875	875
870										885	870
865										880	865
860										875	860

0 20 40
SCALE FEET

0 5 10
SCALE FEET

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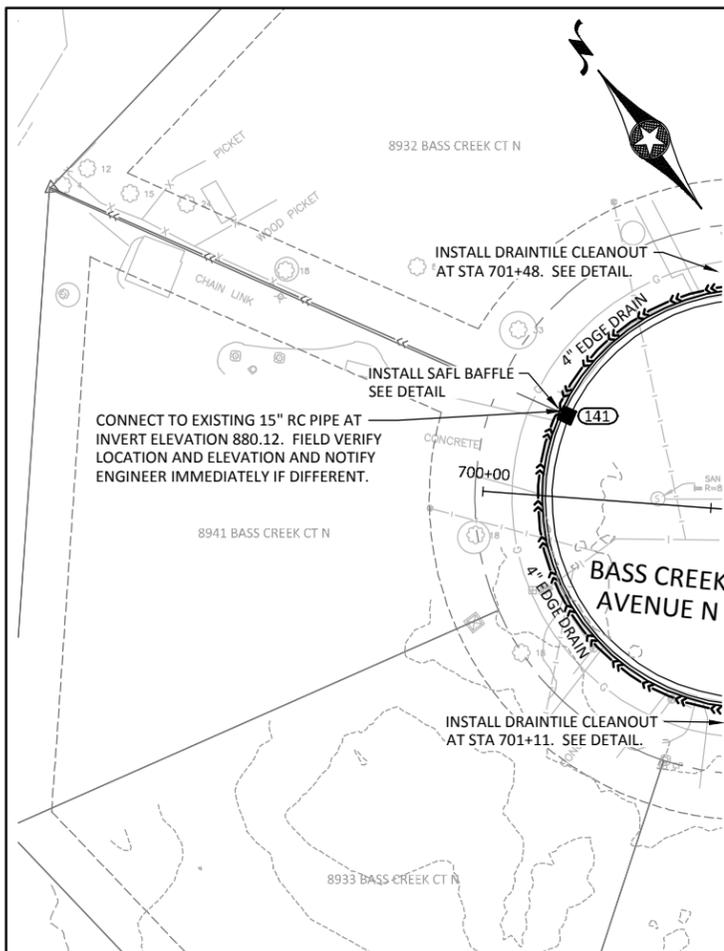
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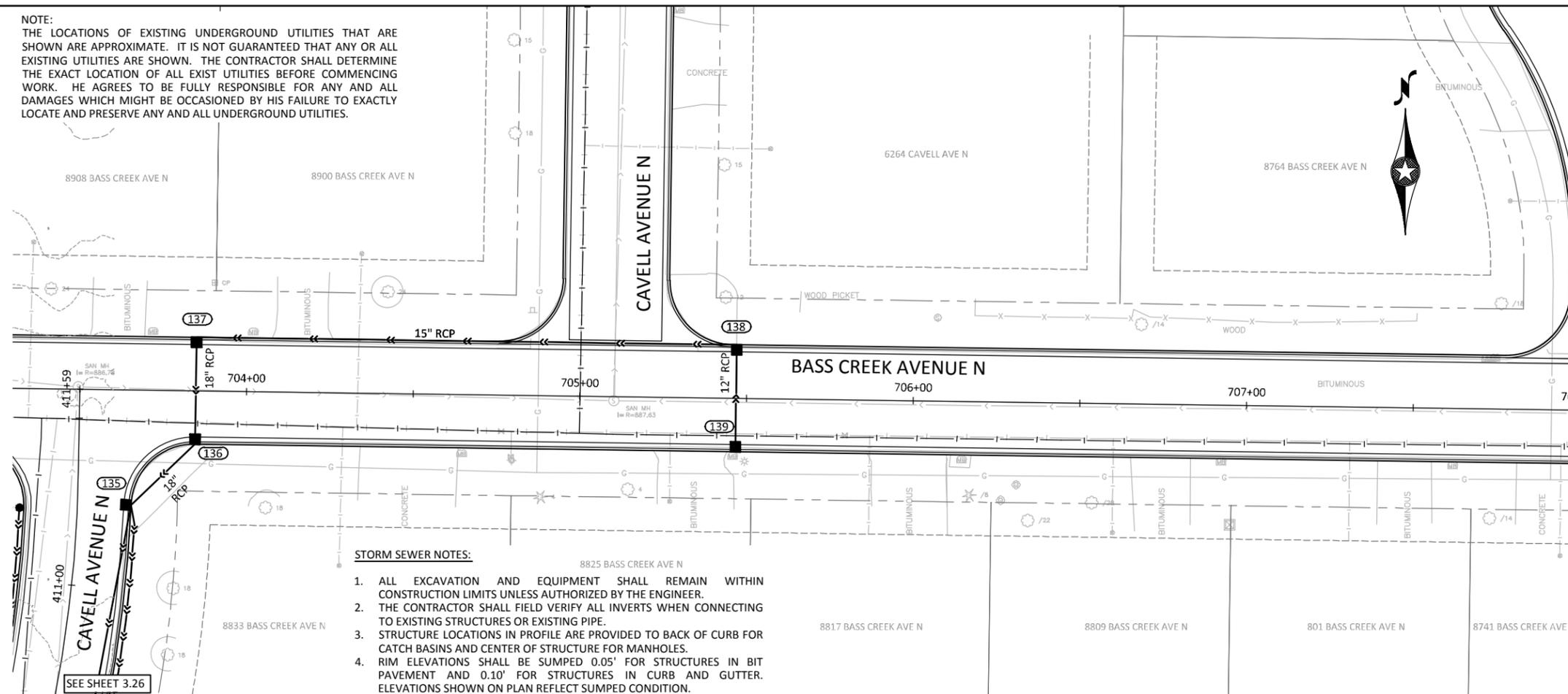
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CITY OF BROOKLYN PARK, MINNESOTA
2016 STREET RECONSTRUCTION PROJECT
STORM SEWER PLAN - CAVELL AVENUE N



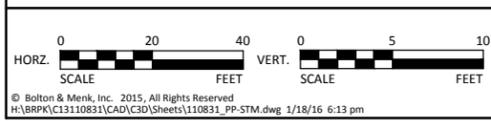
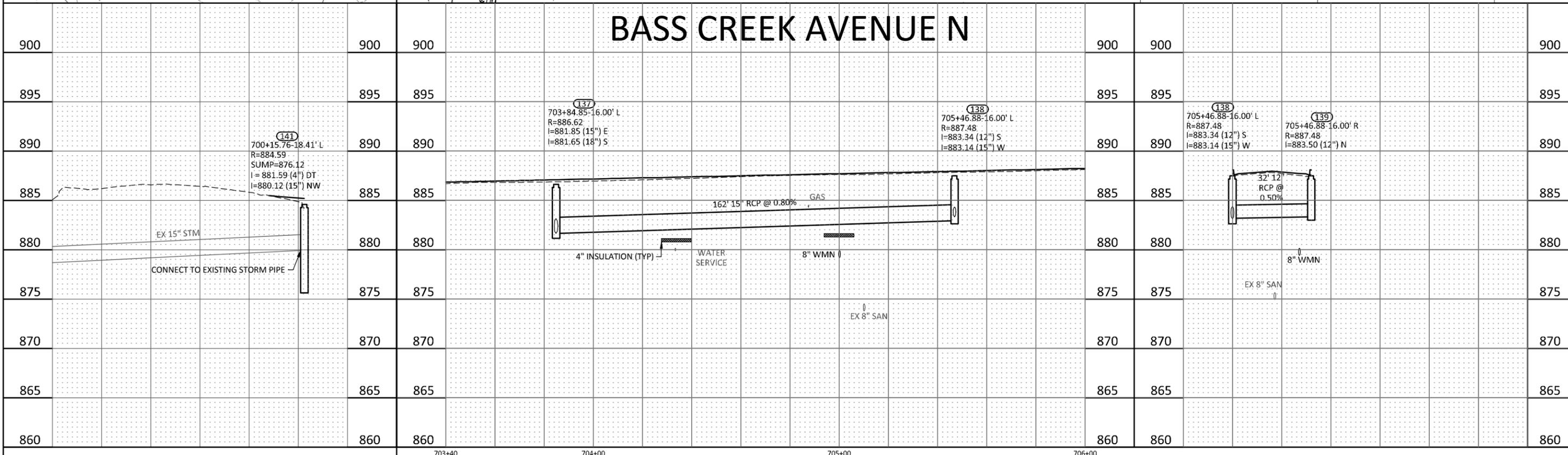
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BASS CREEK AVENUE N



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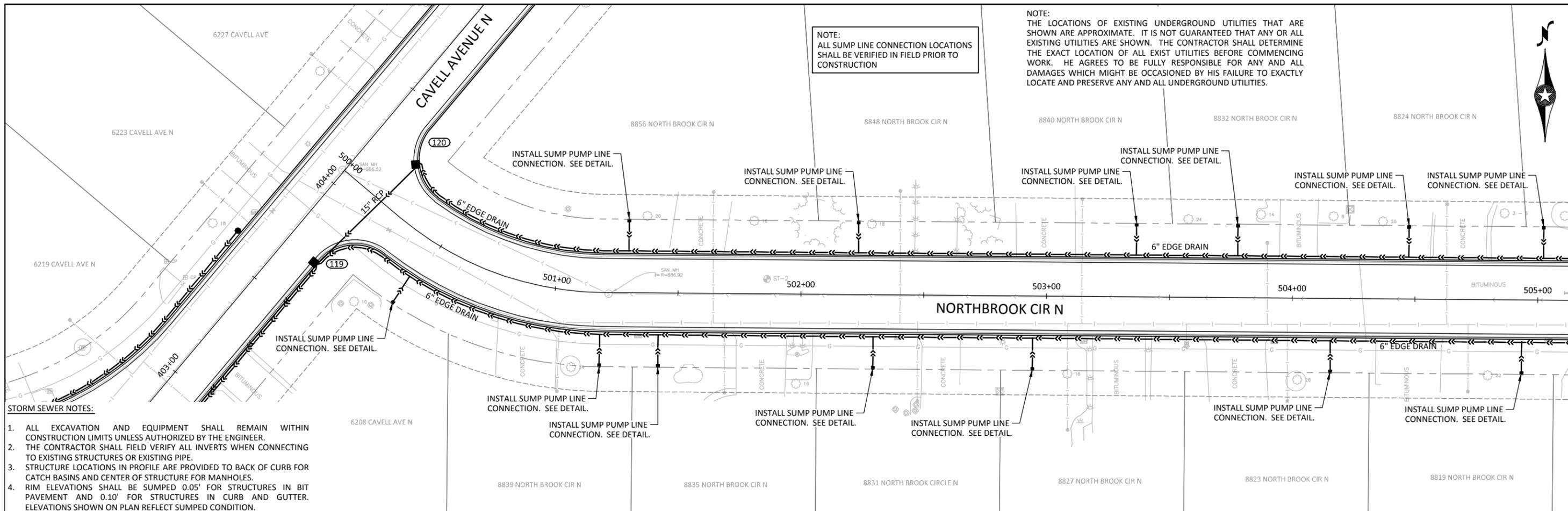
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CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 STORM SEWER PLAN - BASS CREEK AVENUE N

B.29 OF 108

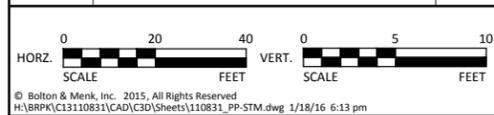
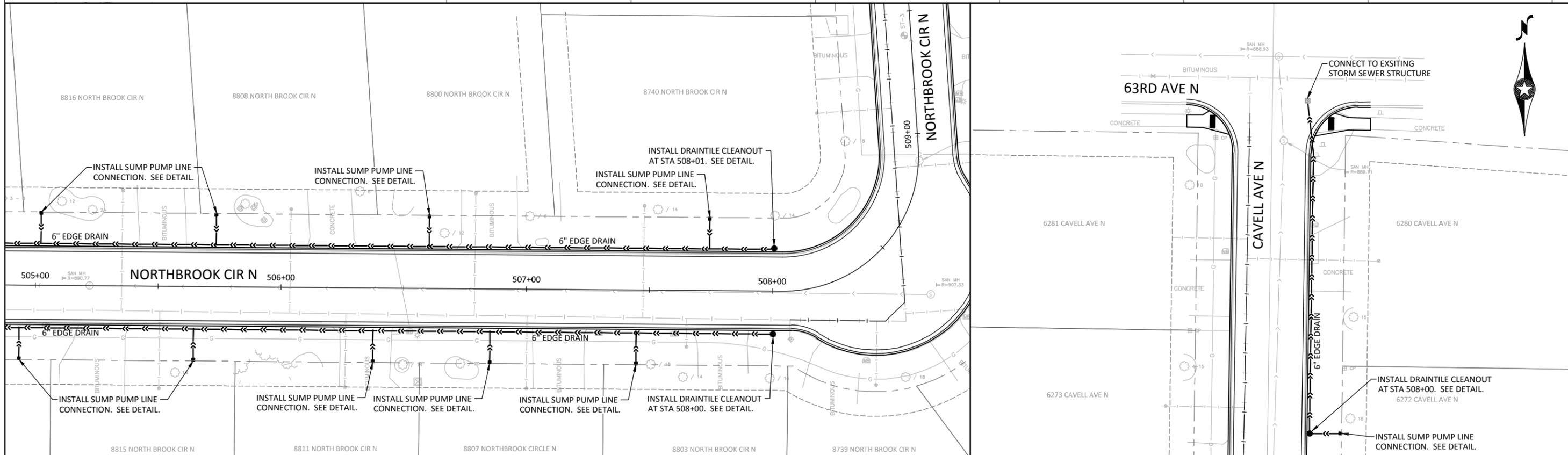


NOTE:
ALL SUMP LINE CONNECTION LOCATIONS SHALL BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION

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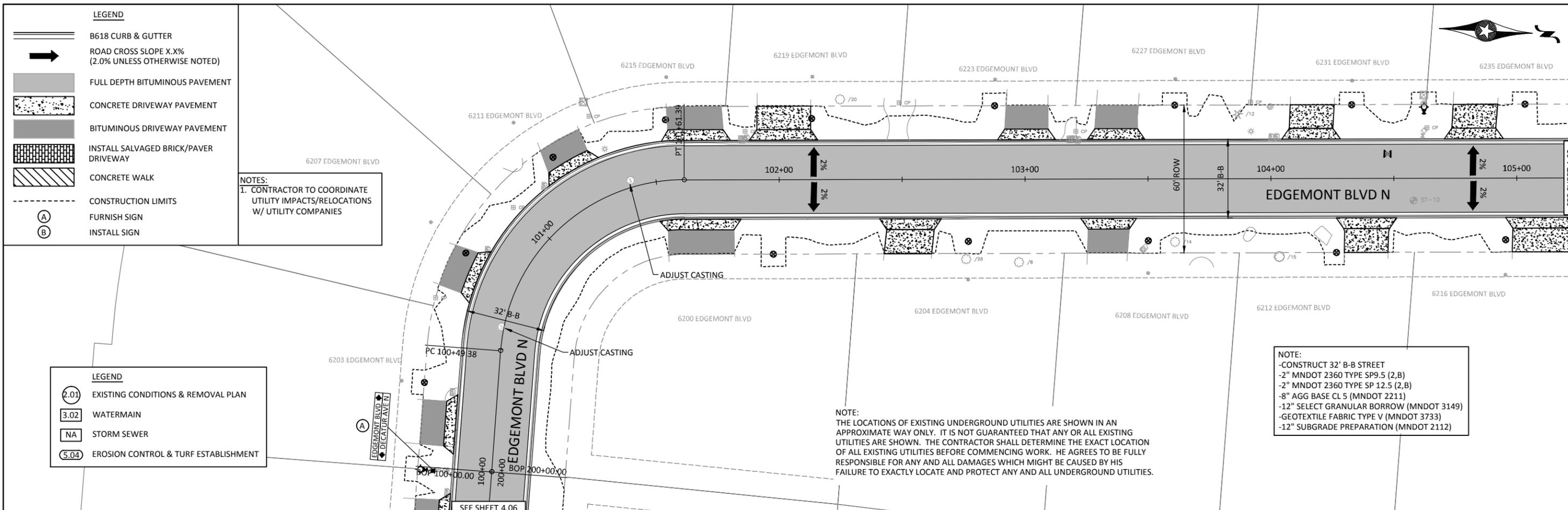
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JOSHUA ECKSTEIN
 LIC. NO. 48224 DATE 01/15/2016

DESIGNED: KAF
 DRAWN: DDS
 CHECKED: JZE

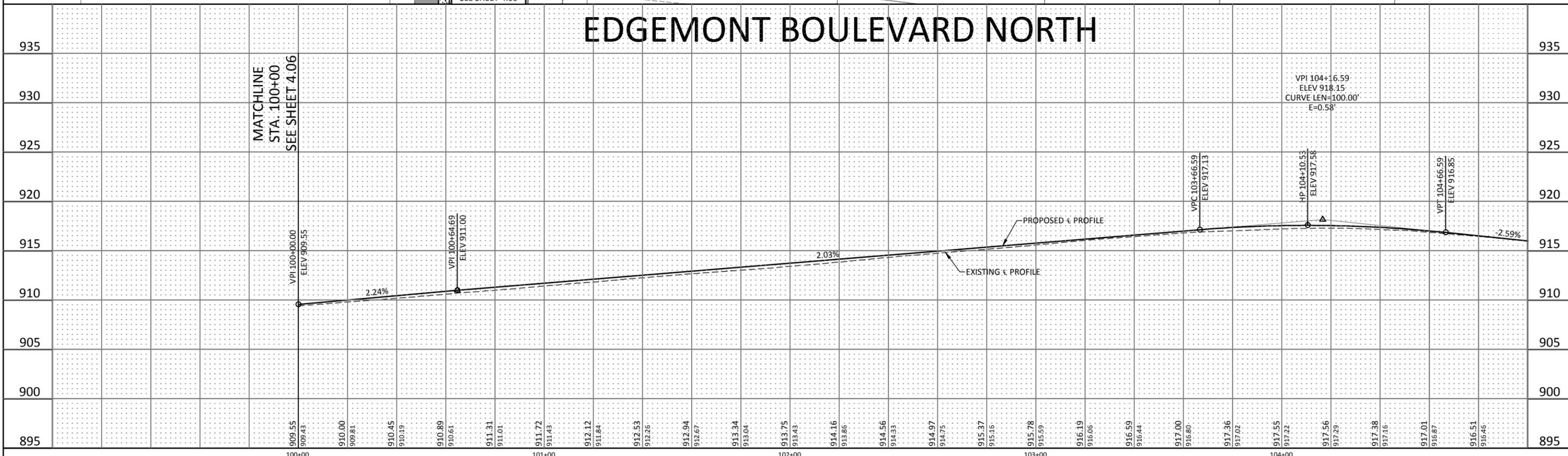
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 AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND

REV.	BY	DATE

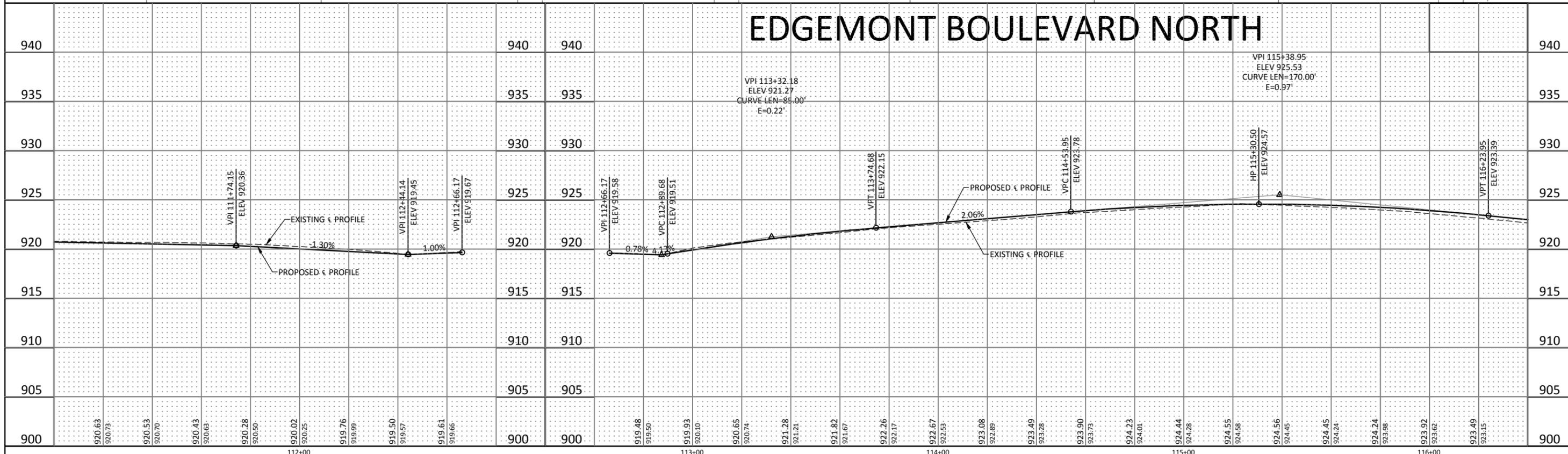
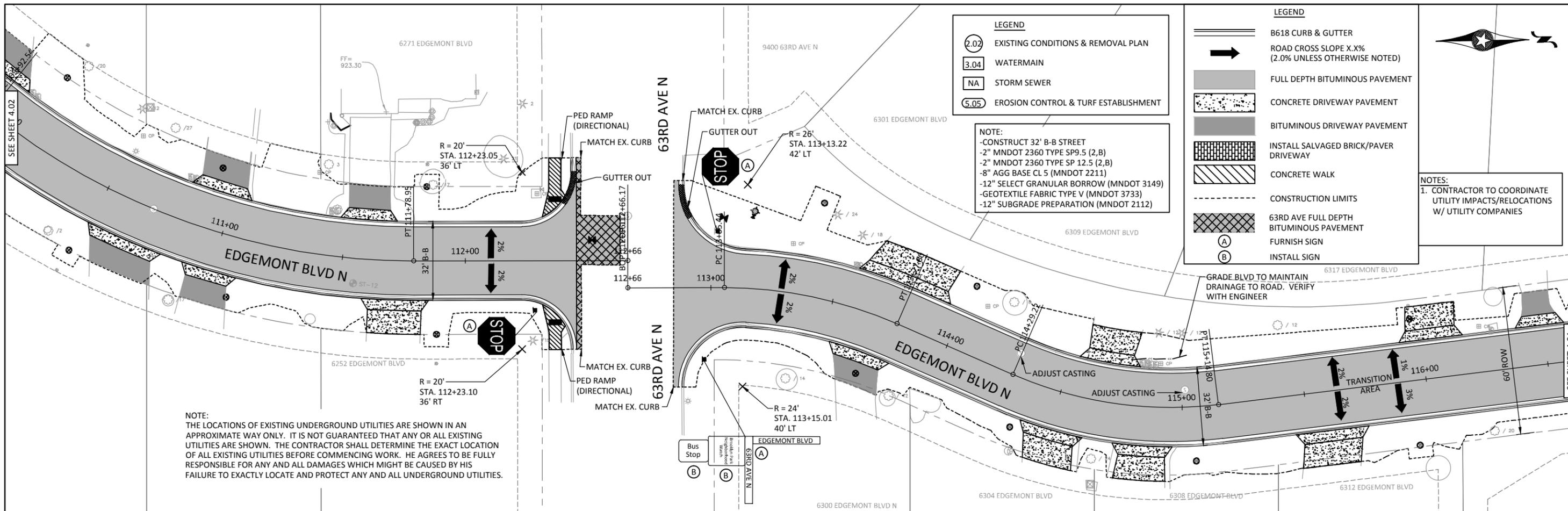
CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
STORM SEWER PLAN - NORTHBROOK CIRCLE N

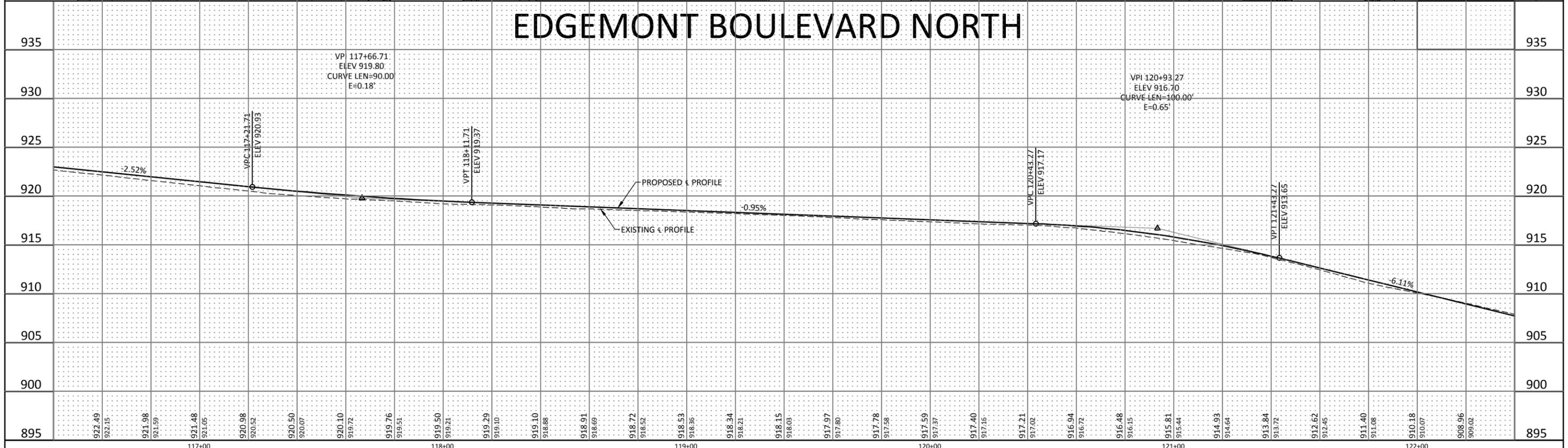
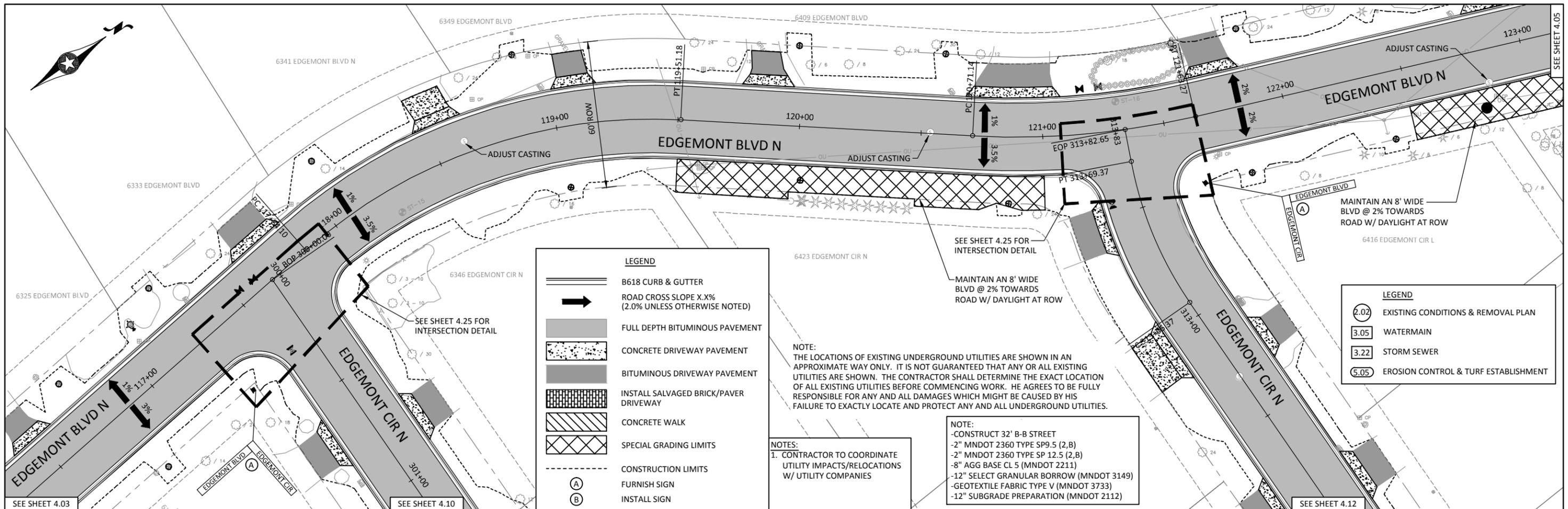


EDGEMONT BOULEVARD NORTH



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REV.	BY	DATE											





0 20 40 FEET

0 5 10 FEET

HORIZ. SCALE

VERT. SCALE

Brooklyn Park

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Joshua Eckstein

JOSHUA ECKSTEIN
LIC. NO. 48224 DATE 01/15/2016

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DRAWN: DDS

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CITY OF BROOKLYN PARK, MINNESOTA

2016 STREET RECONSTRUCTION PROJECT

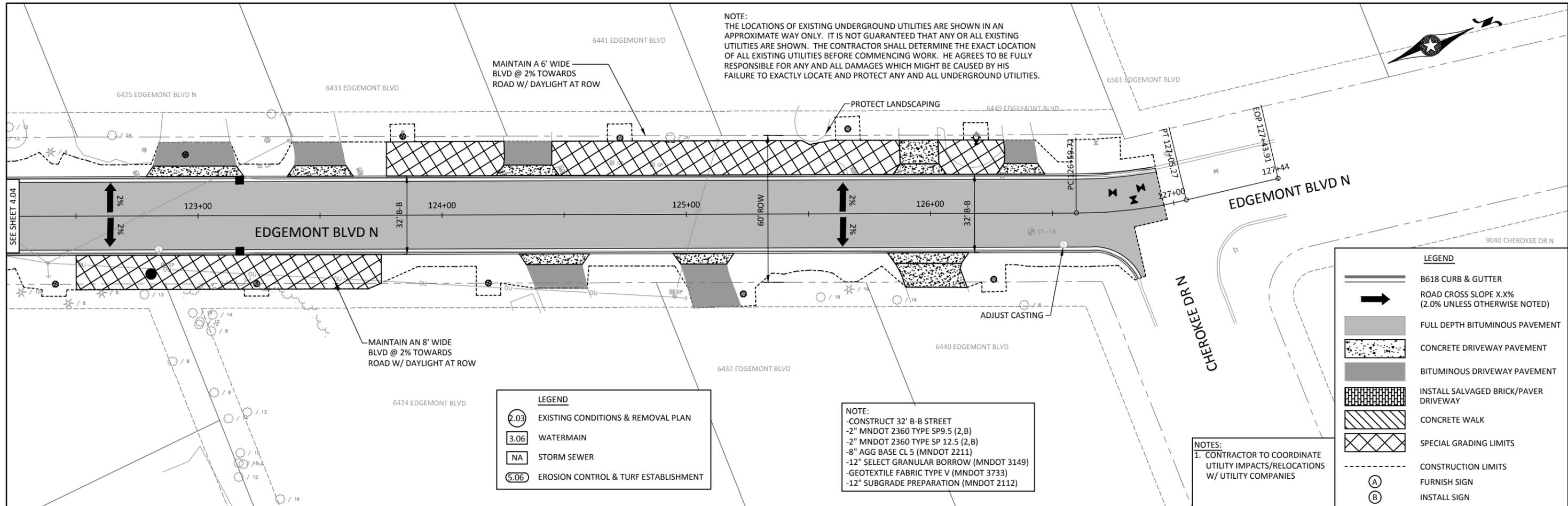
STREET CONSTRUCTION PLAN - EDGEMONT BLVD N

4.04

OF

108

NOTE:
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LEGEND

- B618 CURB & GUTTER
- ROAD CROSS SLOPE X.X% (2.0% UNLESS OTHERWISE NOTED)
- FULL DEPTH BITUMINOUS PAVEMENT
- CONCRETE DRIVEWAY PAVEMENT
- BITUMINOUS DRIVEWAY PAVEMENT
- INSTALL SALVAGED BRICK/PAVER DRIVEWAY
- CONCRETE WALK
- SPECIAL GRADING LIMITS
- CONSTRUCTION LIMITS
- FURNISH SIGN
- INSTALL SIGN

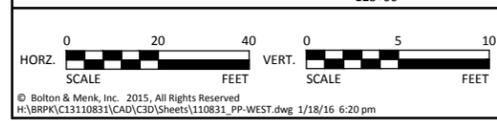
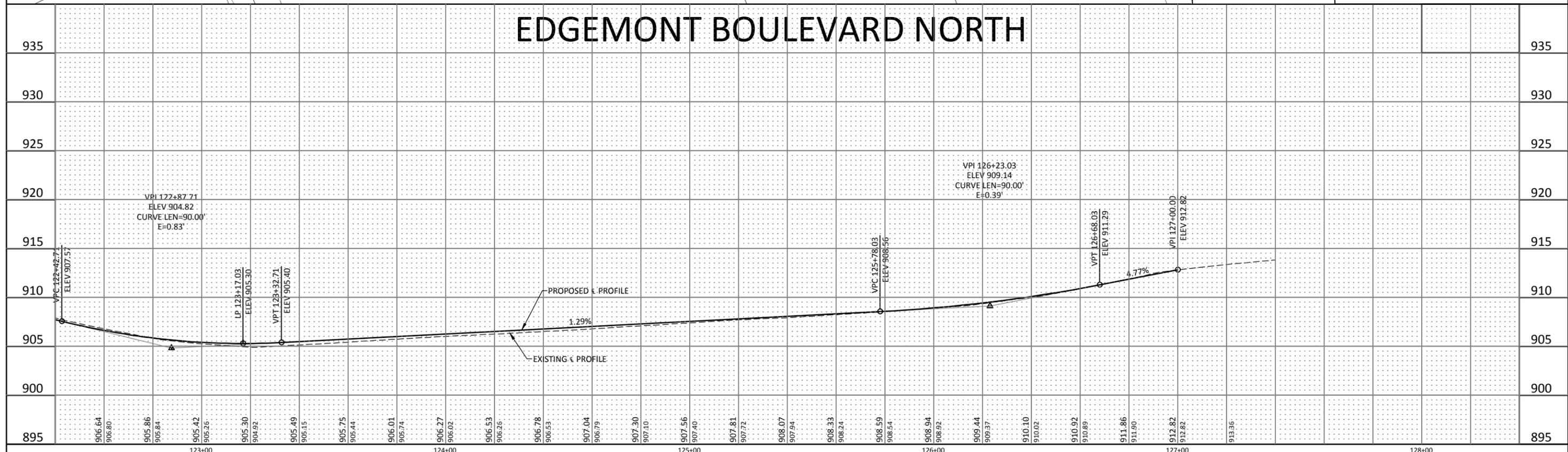
LEGEND

- EXISTING CONDITIONS & REMOVAL PLAN
- WATERMAIN
- STORM SEWER
- EROSION CONTROL & TURF ESTABLISHMENT

NOTE:
-CONSTRUCT 32' B-B STREET
-2" MNDOT 2360 TYPE SP9.5 (2,B)
-2" MNDOT 2360 TYPE SP 12.5 (2,B)
-8" AGG BASE CL 5 (MNDOT 2211)
-12" SELECT GRANULAR BORROW (MNDOT 3149)
-GEOTEXTILE FABRIC TYPE V (MNDOT 3733)
-12" SUBGRADE PREPARATION (MNDOT 2112)

NOTES:
1. CONTRACTOR TO COORDINATE UTILITY IMPACTS/RELOCATIONS W/ UTILITY COMPANIES

EDGEMONT BOULEVARD NORTH



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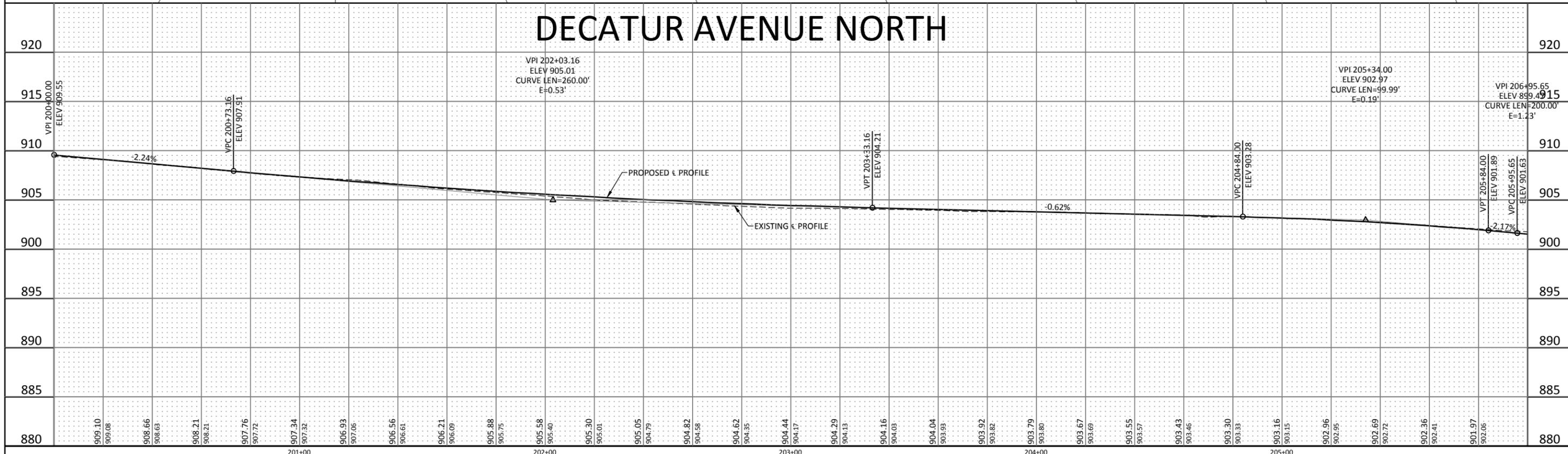
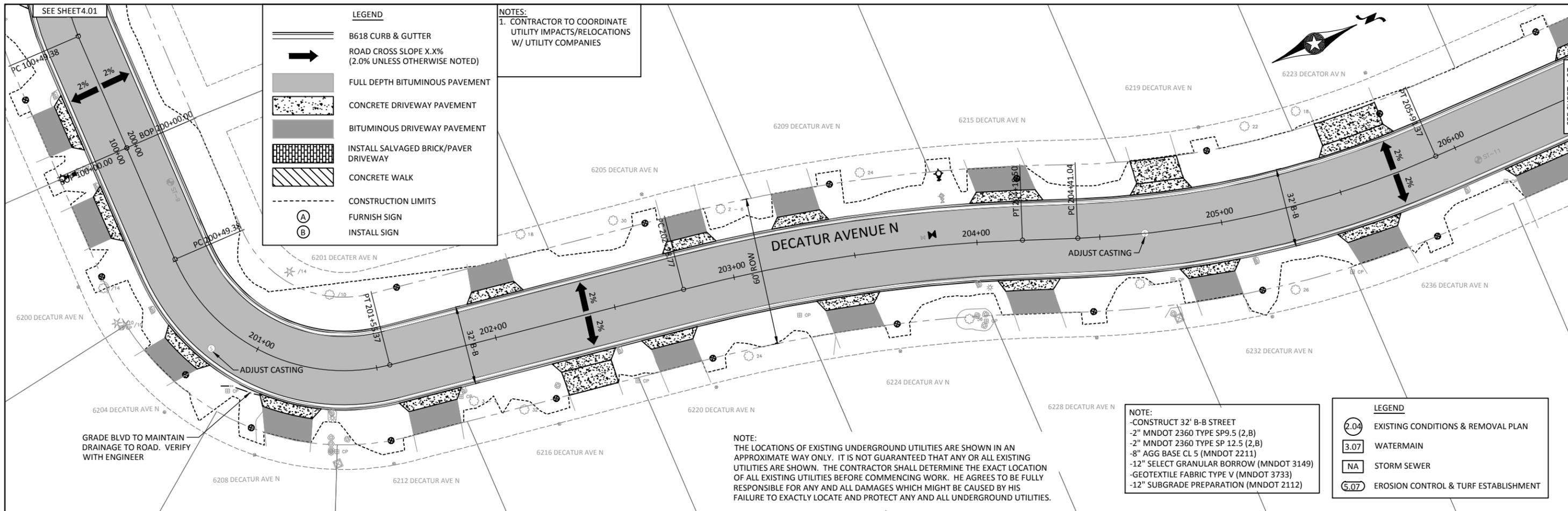
Joshua Eckstein
JOSHUA ECKSTEIN
LIC. NO. 48224 DATE 01/15/2016

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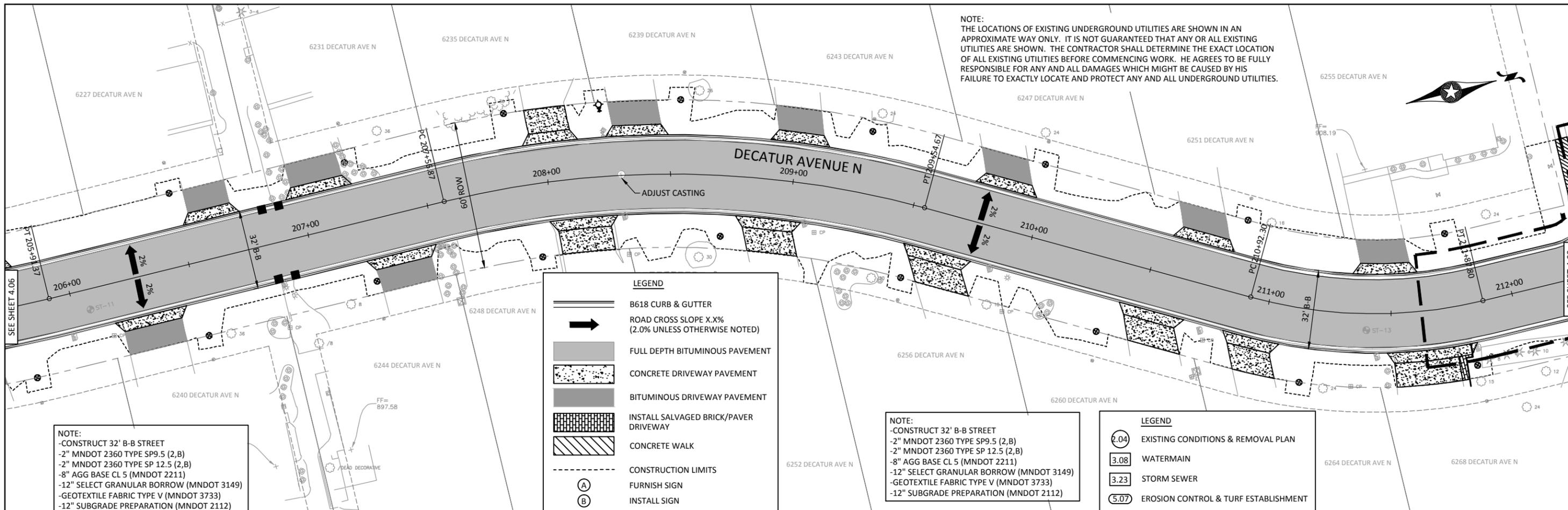
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REV.	BY	DATE	CITY OF BROOKLYN PARK, MINNESOTA	4.05
			2016 STREET RECONSTRUCTION PROJECT	OF
			STREET CONSTRUCTION PLAN - EDGEMONT BLVD N	108

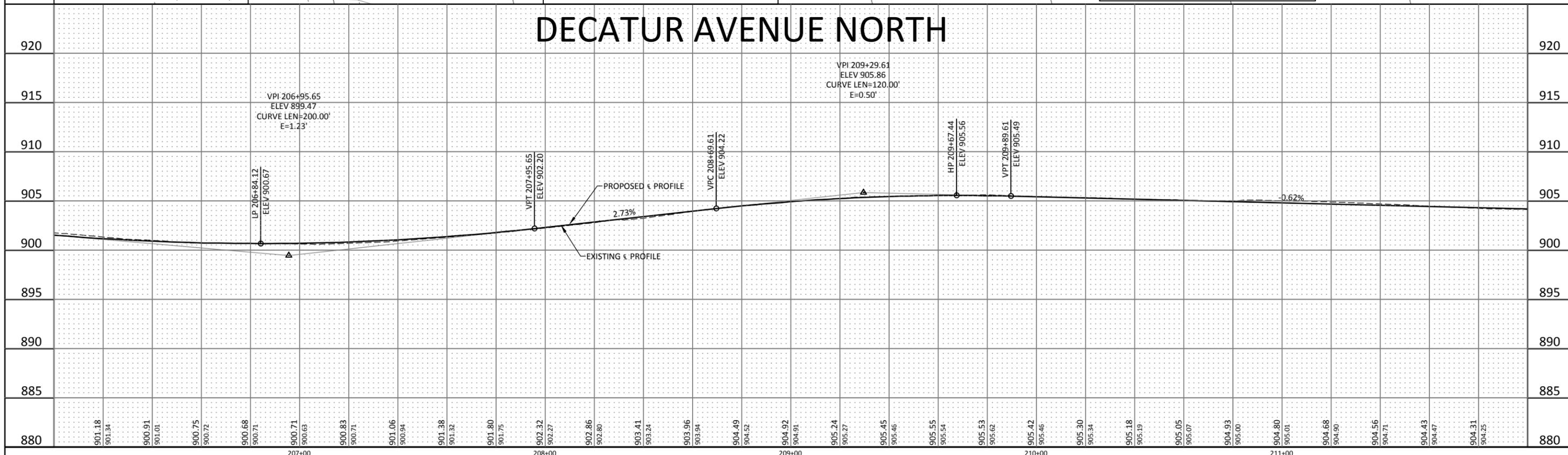
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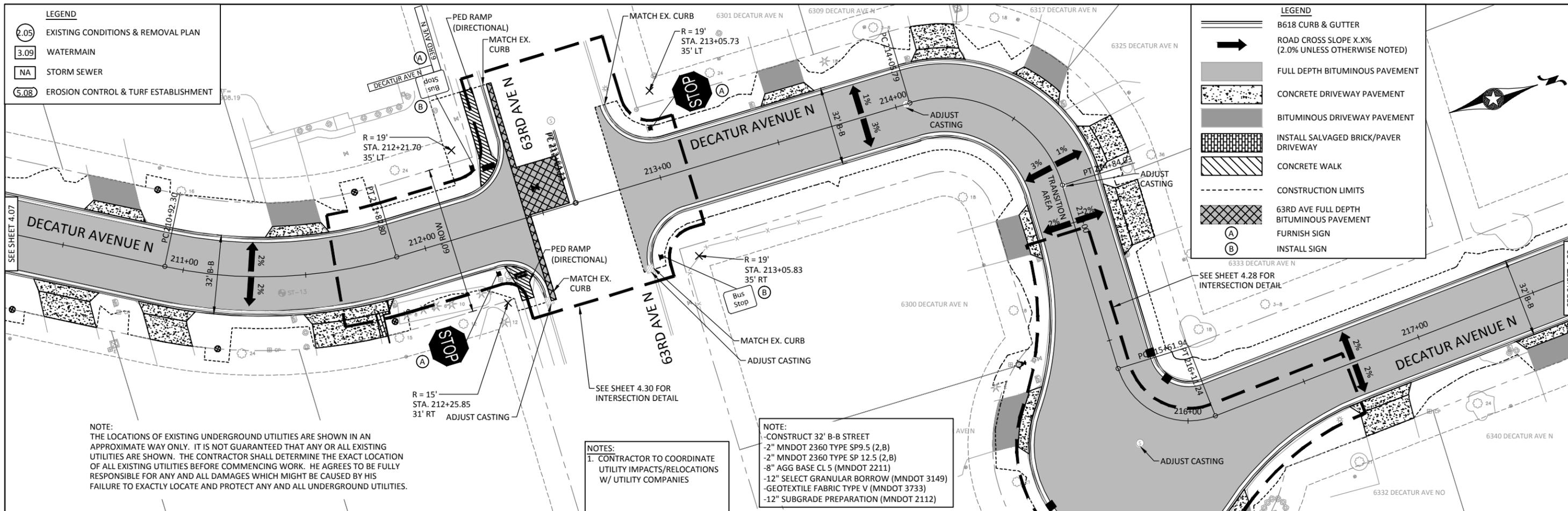
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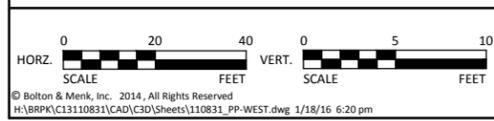
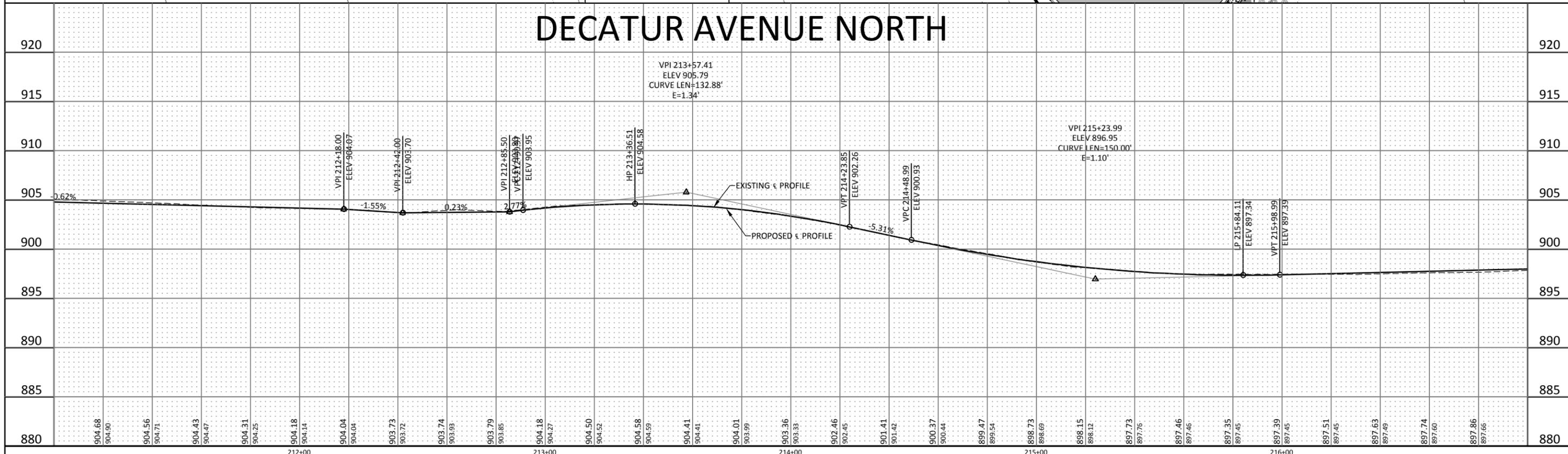
DECATUR AVENUE NORTH



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REV.	BY	DATE														



DECATUR AVENUE NORTH

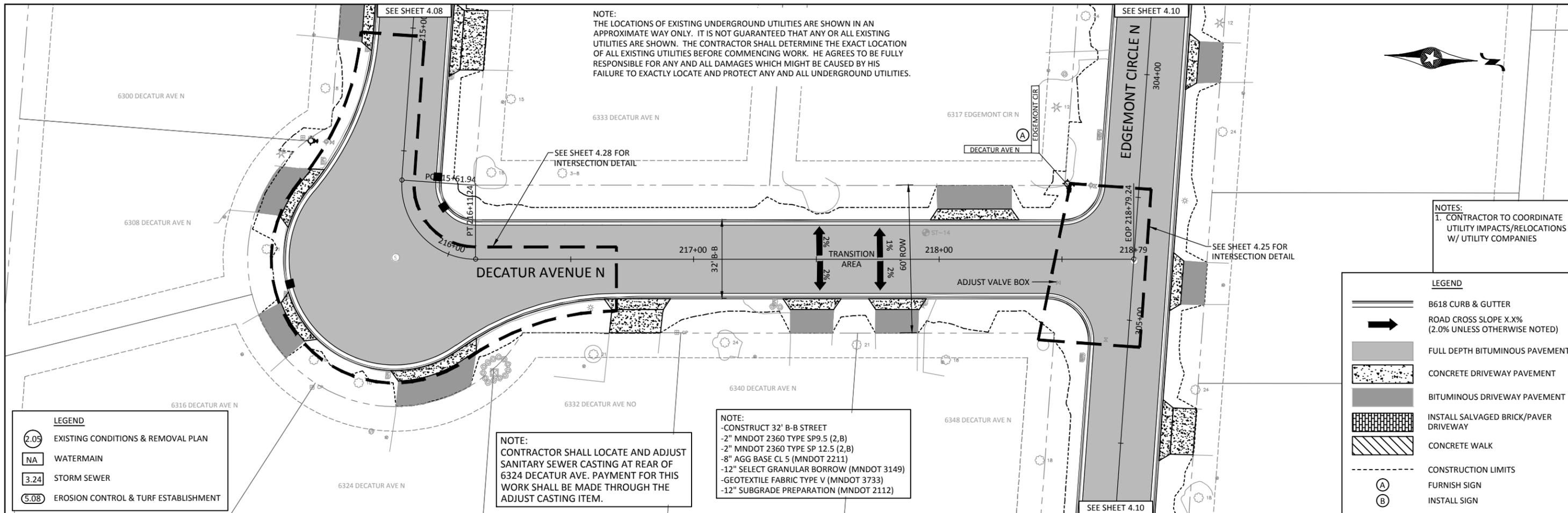


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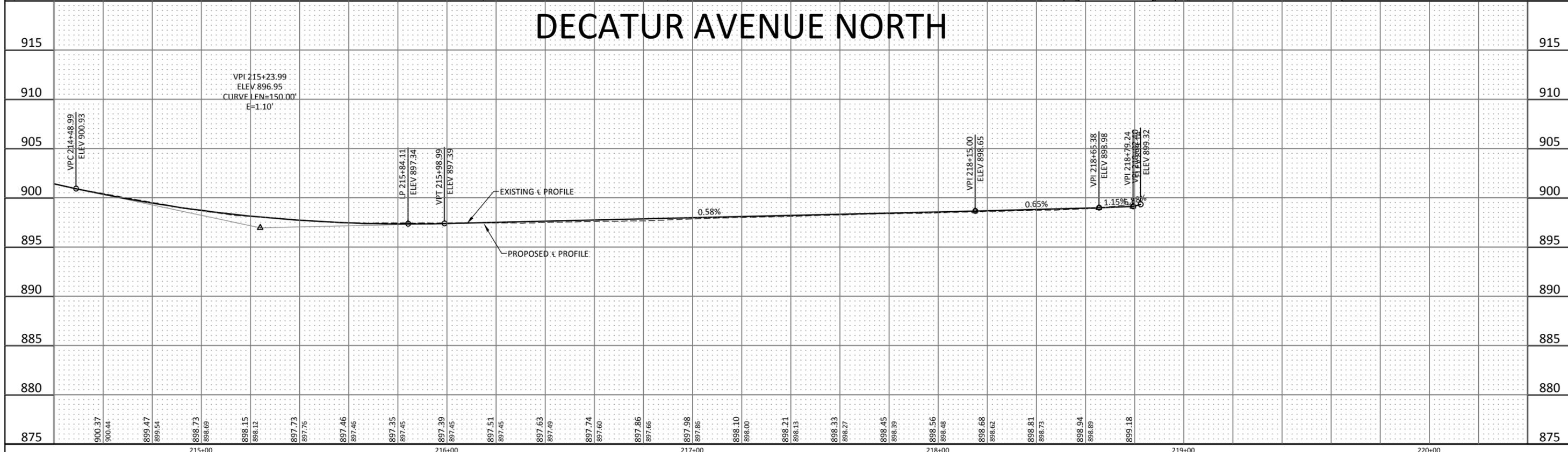
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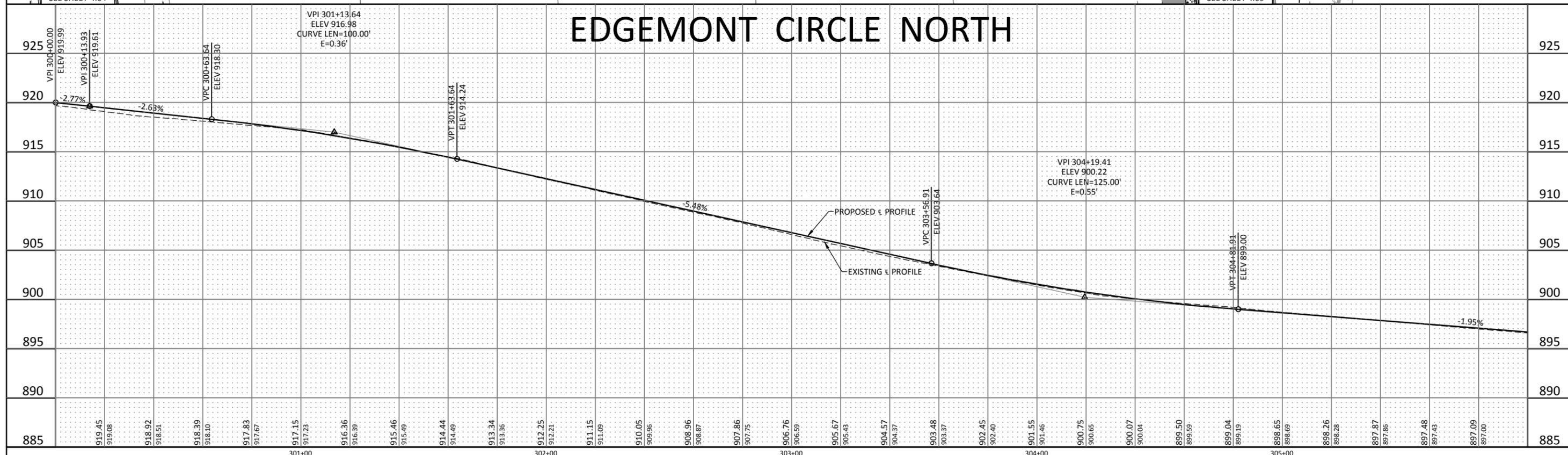
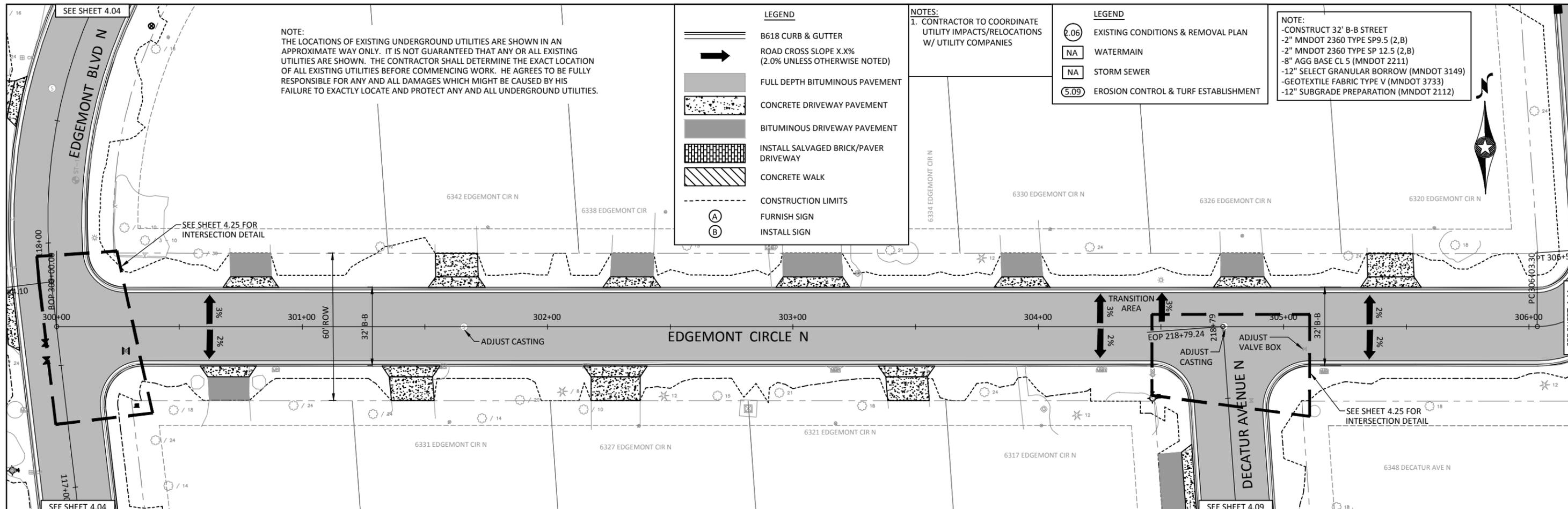
REV.	BY	DATE	CITY OF BROOKLYN PARK, MINNESOTA	SHEET
			2016 STREET RECONSTRUCTION PROJECT	4.08
			STREET CONSTRUCTION PLAN - DECATUR AVENUE N	OF 108



DECATUR AVENUE NORTH



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<p>© Bolton & Menk, Inc. 2014, All Rights Reserved H:\BRPK\C13110831\CAD\C3D\Sheets\110831_PP-WEST.dwg 1/18/16 6:20 pm</p>					JOSHUA ECKSTEIN LIC. NO. 48224 DATE 01/15/2016	STREET CONSTRUCTION PLAN - DECATUR AVENUE N	



LEGEND

- 2.06 EXISTING CONDITIONS & REMOVAL PLAN
- NA WATERMAIN
- 3.24 STORM SEWER
- 5.09 EROSION CONTROL & TURF ESTABLISHMENT

LEGEND

- B618 CURB & GUTTER
- ROAD CROSS SLOPE X.X% (2.0% UNLESS OTHERWISE NOTED)
- FULL DEPTH BITUMINOUS PAVEMENT
- CONCRETE DRIVEWAY PAVEMENT
- BITUMINOUS DRIVEWAY PAVEMENT
- INSTALL SALVAGED BRICK/PAVER DRIVEWAY
- CONCRETE WALK
- CONSTRUCTION LIMITS
- FURNISH SIGN (A)
- INSTALL SIGN (B)

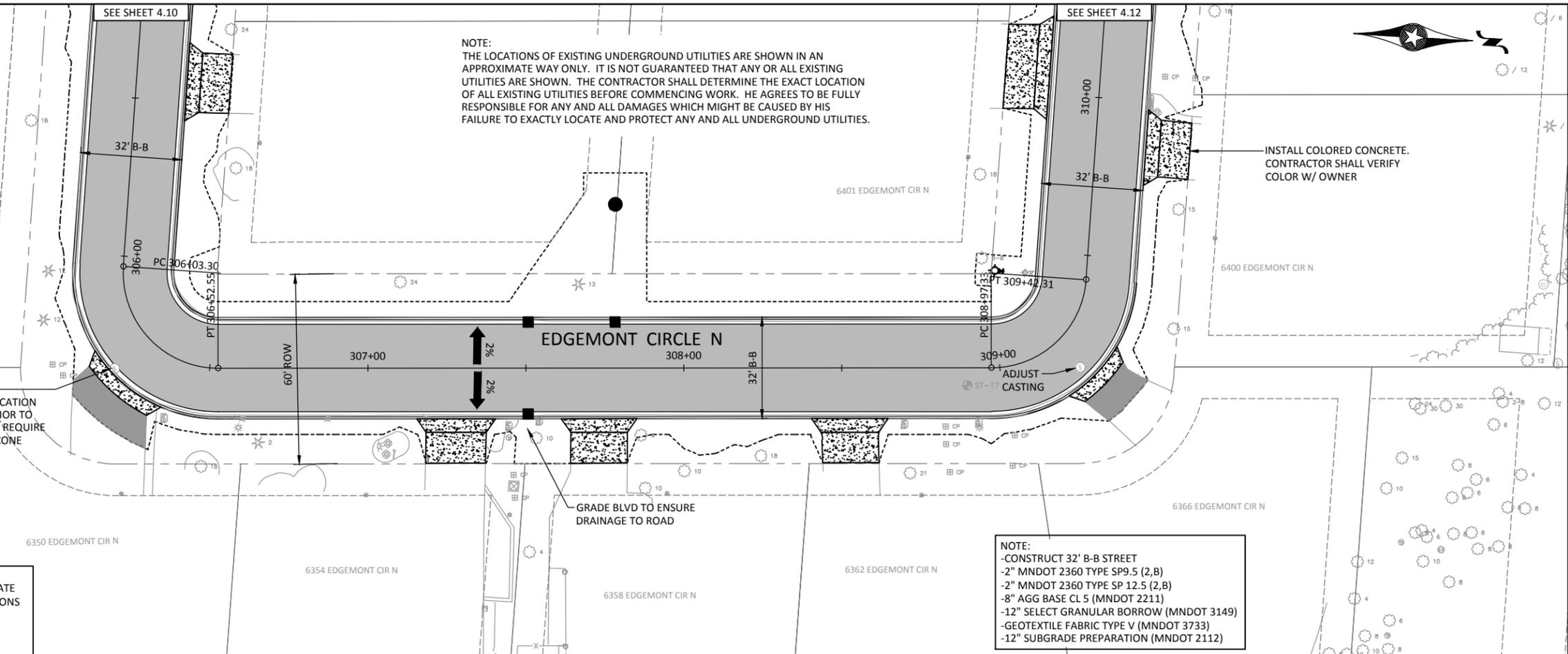
NOTES:
 1. CONTRACTOR TO COORDINATE UTILITY IMPACTS/RELOCATIONS W/ UTILITY COMPANIES

ADJUST CASTING
 VERIFY CASTING LOCATION WITH ENGINEER PRIOR TO ADJUSTMENT. MAY REQUIRE ROTATION OF MH CONE

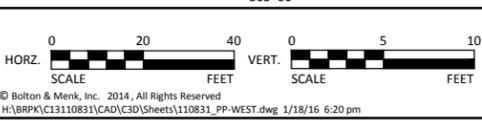
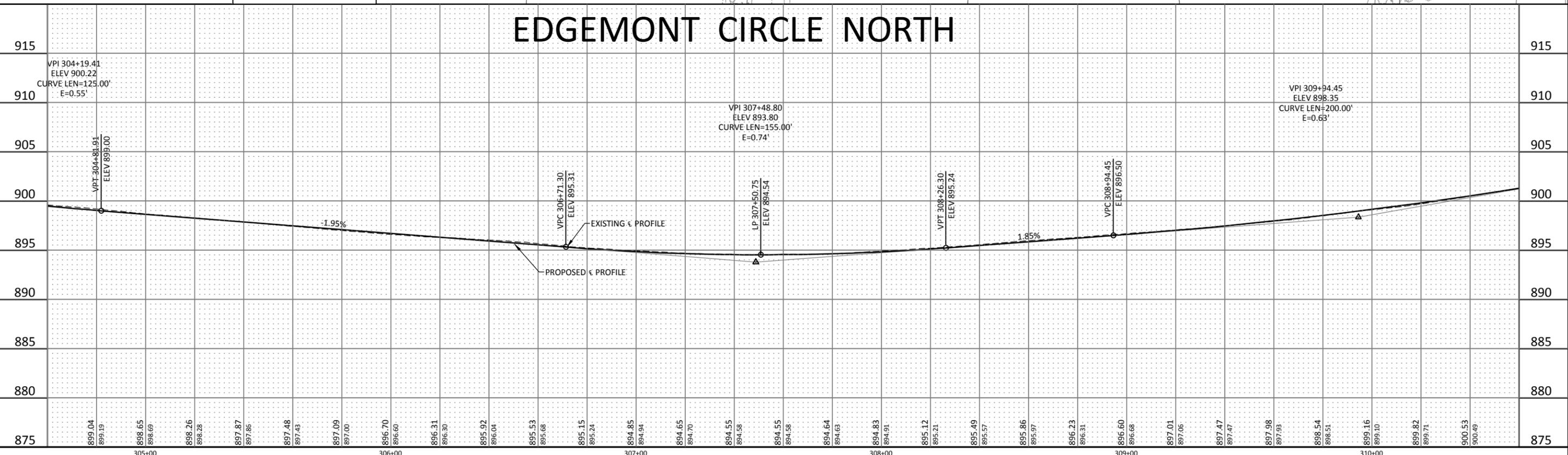
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NOTE:
 -CONSTRUCT 32' B-B STREET
 -2" MNDOT 2360 TYPE SP9.5 (2,B)
 -2" MNDOT 2360 TYPE SP 12.5 (2,B)
 -8" AGG BASE CL 5 (MNDOT 2211)
 -12" SELECT GRANULAR BORROW (MNDOT 3149)
 -GEOTEXTILE FABRIC TYPE V (MNDOT 3733)
 -12" SUBGRADE PREPARATION (MNDOT 2112)

INSTALL COLORED CONCRETE.
 CONTRACTOR SHALL VERIFY COLOR W/ OWNER



EDGEMONT CIRCLE NORTH



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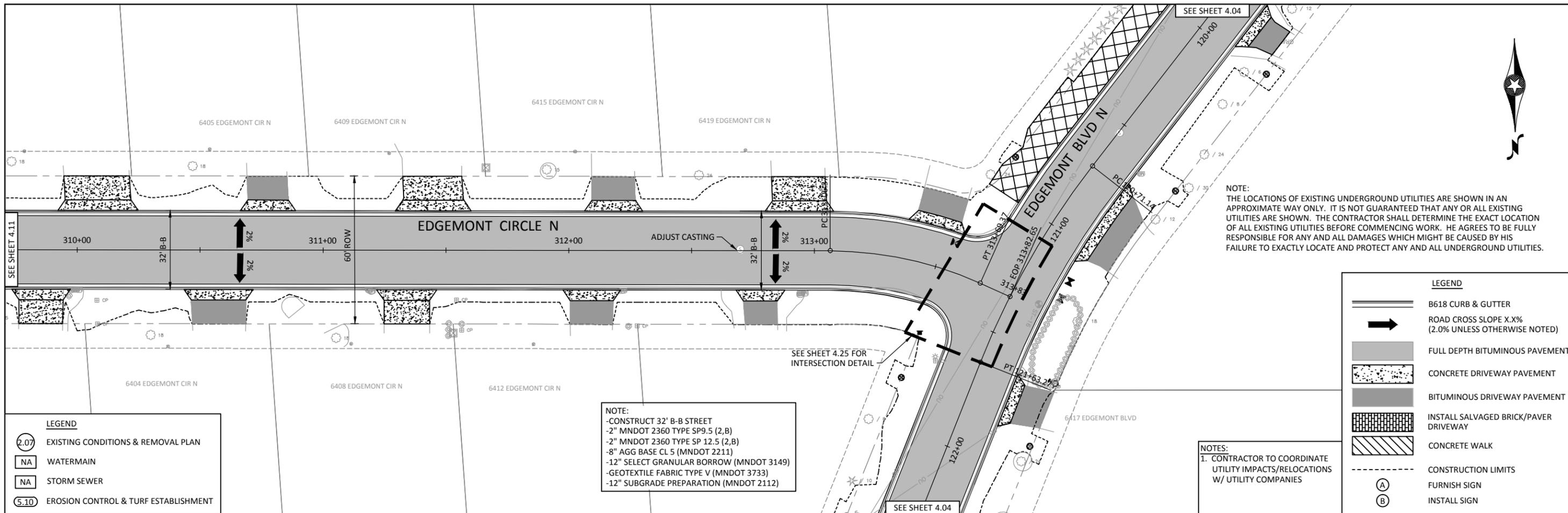
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 AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND

DESIGNED: SAE
 DRAWN: DDS
 CHECKED: JZE

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CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 STREET CONSTRUCTION PLAN - EDGEMONT CIRCLE N

SHEET 4.11 OF 108



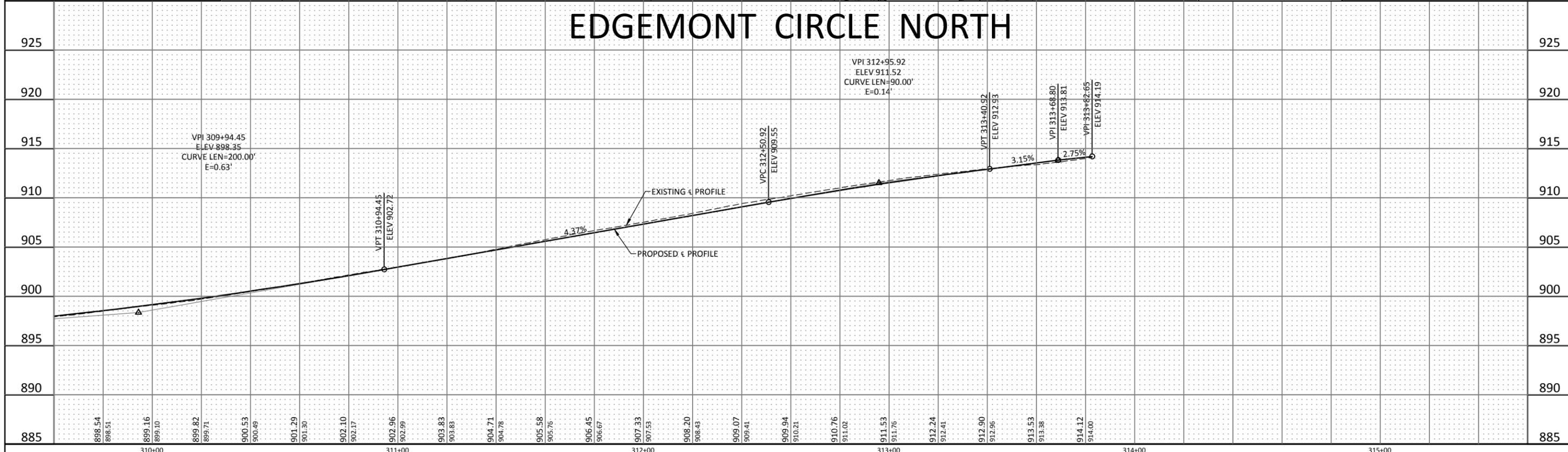
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- LEGEND**
- (2.07) EXISTING CONDITIONS & REMOVAL PLAN
 - NA WATERMAIN
 - NA STORM SEWER
 - (5.10) EROSION CONTROL & TURF ESTABLISHMENT

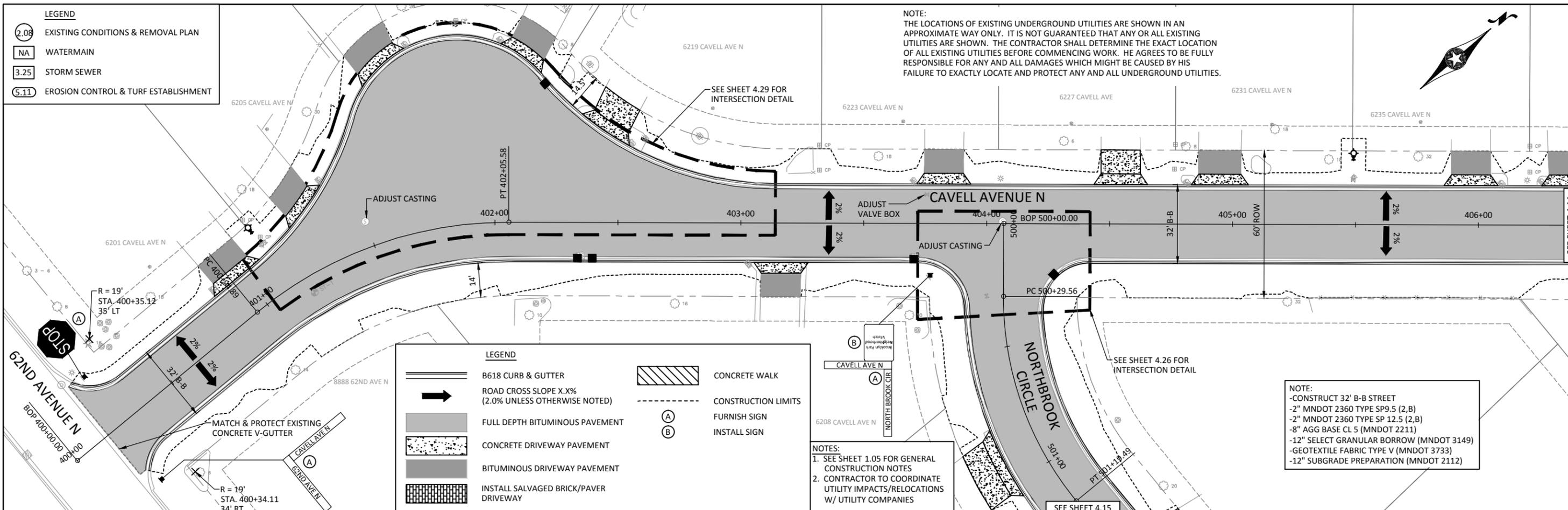
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-2" MNDOT 2360 TYPE SP 12.5 (2,B)
-8" AGG BASE CL 5 (MNDOT 2211)
-12" SELECT GRANULAR BORROW (MNDOT 3149)
-GEOTEXTILE FABRIC TYPE V (MNDOT 3733)
-12" SUBGRADE PREPARATION (MNDOT 2112)

NOTES:
1. CONTRACTOR TO COORDINATE UTILITY IMPACTS/RELOCATIONS W/ UTILITY COMPANIES

- LEGEND**
- ▬▬▬ B618 CURB & GUTTER
 - ➔ ROAD CROSS SLOPE X.X% (2.0% UNLESS OTHERWISE NOTED)
 - FULL DEPTH BITUMINOUS PAVEMENT
 - ▨ CONCRETE DRIVEWAY PAVEMENT
 - BITUMINOUS DRIVEWAY PAVEMENT
 - ▨ INSTALL SALVAGED BRICK/PAVER DRIVEWAY
 - ▨ CONCRETE WALK
 - - - CONSTRUCTION LIMITS
 - (A) FURNISH SIGN
 - (B) INSTALL SIGN



<p>HORIZ. SCALE: 0 20 40 FEET</p> <p>VERT. SCALE: 0 5 10 FEET</p>	<p>Brooklyn Park Unique. United. Undiscovered.</p>	<p>I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.</p> <p style="text-align: center;"><i>Joshua Eckstein</i> JOSHUA ECKSTEIN LIC. NO. 48224 DATE 01/15/2016</p>	<p>DESIGNED: SAE DRAWN: DDS CHECKED: JZE</p>	<p>BOLTON & MENK, INC. Consulting Engineers & Surveyors MANKATO, MN FAIRMONT, MN SLEEPY EYE, MN BURNSVILLE, MN WILLMAR, MN CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>REV.</th><th>BY</th><th>DATE</th></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	REV.	BY	DATE							<p>CITY OF BROOKLYN PARK, MINNESOTA 2016 STREET RECONSTRUCTION PROJECT STREET CONSTRUCTION PLAN - EDGEMONT CIRCLE N</p>	<p>SHEET 4.12 OF 108</p>
REV.	BY	DATE														



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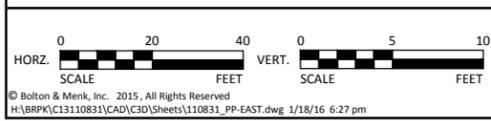
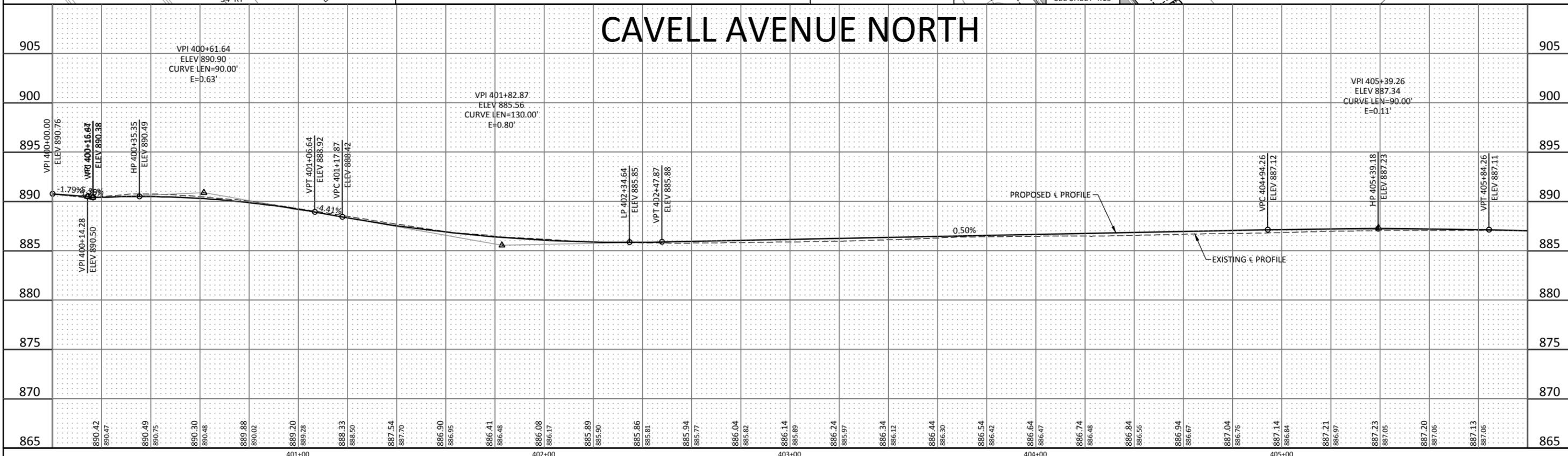
- LEGEND**
- 2.08 EXISTING CONDITIONS & REMOVAL PLAN
 - NA WATERMAIN
 - 3.25 STORM SEWER
 - 6.11 EROSION CONTROL & TURF ESTABLISHMENT

- LEGEND**
- B618 CURB & GUTTER
 - ROAD CROSS SLOPE X.X% (2.0% UNLESS OTHERWISE NOTED)
 - FULL DEPTH BITUMINOUS PAVEMENT
 - CONCRETE DRIVEWAY PAVEMENT
 - BITUMINOUS DRIVEWAY PAVEMENT
 - INSTALL SALVAGED BRICK/PAVER DRIVEWAY
 - CONCRETE WALK
 - CONSTRUCTION LIMITS
 - FURNISH SIGN (A)
 - INSTALL SIGN (B)

NOTES:
1. SEE SHEET 1.05 FOR GENERAL CONSTRUCTION NOTES
2. CONTRACTOR TO COORDINATE UTILITY IMPACTS/RELOCATIONS W/ UTILITY COMPANIES

NOTE:
-CONSTRUCT 32' B-B STREET
-2" MNDOT 2360 TYPE SP9.5 (2,B)
-2" MNDOT 2360 TYPE SP 12.5 (2,B)
-8" AGG BASE CL 5 (MNDOT 2211)
-12" SELECT GRANULAR BORROW (MNDOT 3149)
-GEOTEXTILE FABRIC TYPE V (MNDOT 3733)
-12" SUBGRADE PREPARATION (MNDOT 2112)

CAVELL AVENUE NORTH



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AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND

REV.	BY	DATE	CITY OF BROOKLYN PARK, MINNESOTA 2016 STREET RECONSTRUCTION PROJECT STREET CONSTRUCTION PLAN - CAVELL AVENUE N	SHEET 4.13 OF 108

NOTE:
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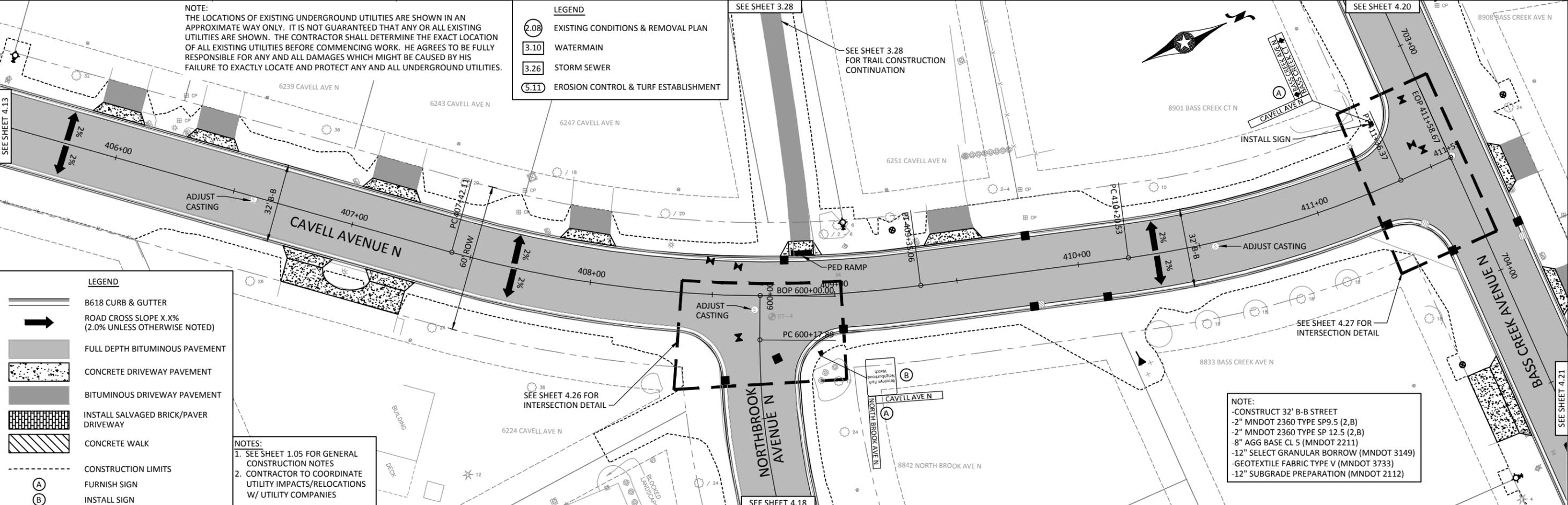
LEGEND

2.08	EXISTING CONDITIONS & REMOVAL PLAN
3.10	WATERMAIN
3.26	STORM SEWER
5.11	EROSION CONTROL & TURF ESTABLISHMENT

SEE SHEET 3.28

SEE SHEET 3.28 FOR TRAIL CONSTRUCTION CONTINUATION

SEE SHEET 4.20



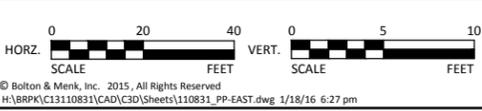
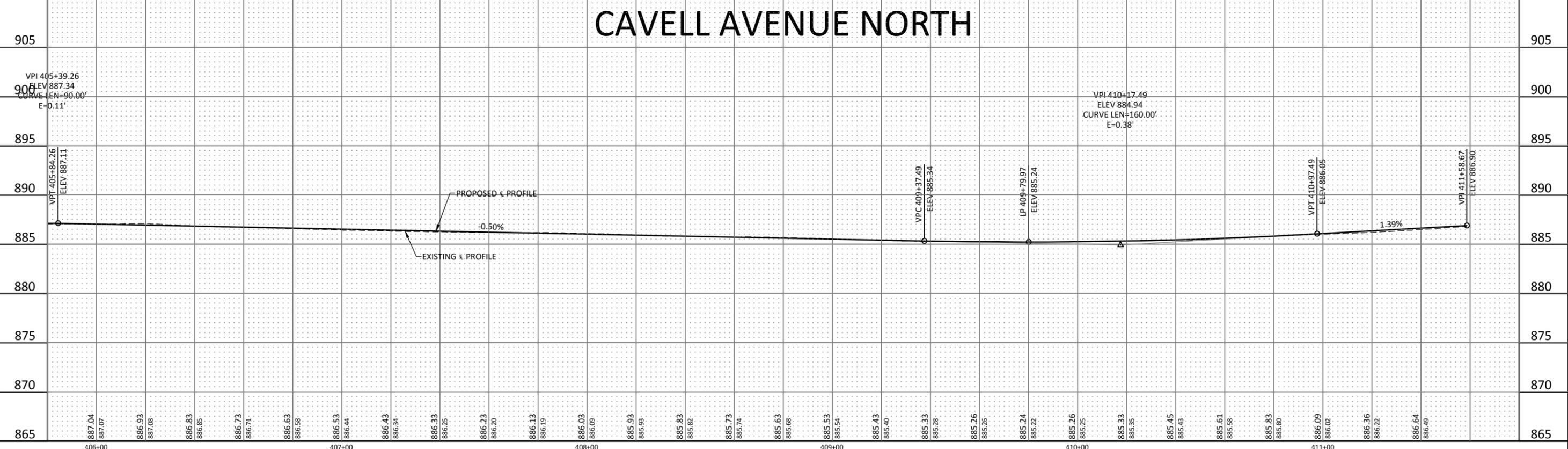
LEGEND

	B618 CURB & GUTTER
	ROAD CROSS SLOPE X.X% (2.0% UNLESS OTHERWISE NOTED)
	FULL DEPTH BITUMINOUS PAVEMENT
	CONCRETE DRIVEWAY PAVEMENT
	BITUMINOUS DRIVEWAY PAVEMENT
	INSTALL SALVAGED BRICK/PAVER DRIVEWAY
	CONCRETE WALK
	CONSTRUCTION LIMITS
	FURNISH SIGN
	INSTALL SIGN

NOTES:
1. SEE SHEET 1.05 FOR GENERAL CONSTRUCTION NOTES
2. CONTRACTOR TO COORDINATE UTILITY IMPACTS/RELOCATIONS W/ UTILITY COMPANIES

NOTE:
-CONSTRUCT 32' B-B STREET
-2" MNDOT 2360 TYPE SP9.5 (2,B)
-2" MNDOT 2360 TYPE SP 12.5 (2,B)
-8" AGG BASE CL 5 (MNDOT 2211)
-12" SELECT GRANULAR BORROW (MNDOT 3149)
-GEOTEXTILE FABRIC TYPE V (MNDOT 3733)
-12" SUBGRADE PREPARATION (MNDOT 2112)

CAVELL AVENUE NORTH



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Joshua Eckstein
JOSHUA ECKSTEIN
LIC. NO. 48224 DATE 01/15/2016

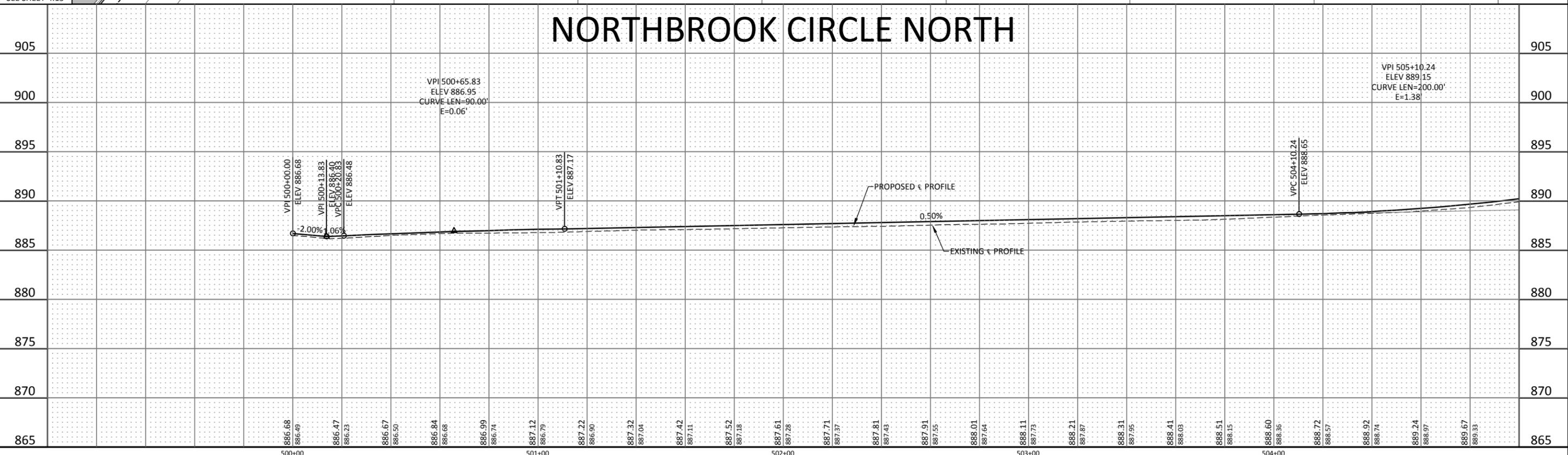
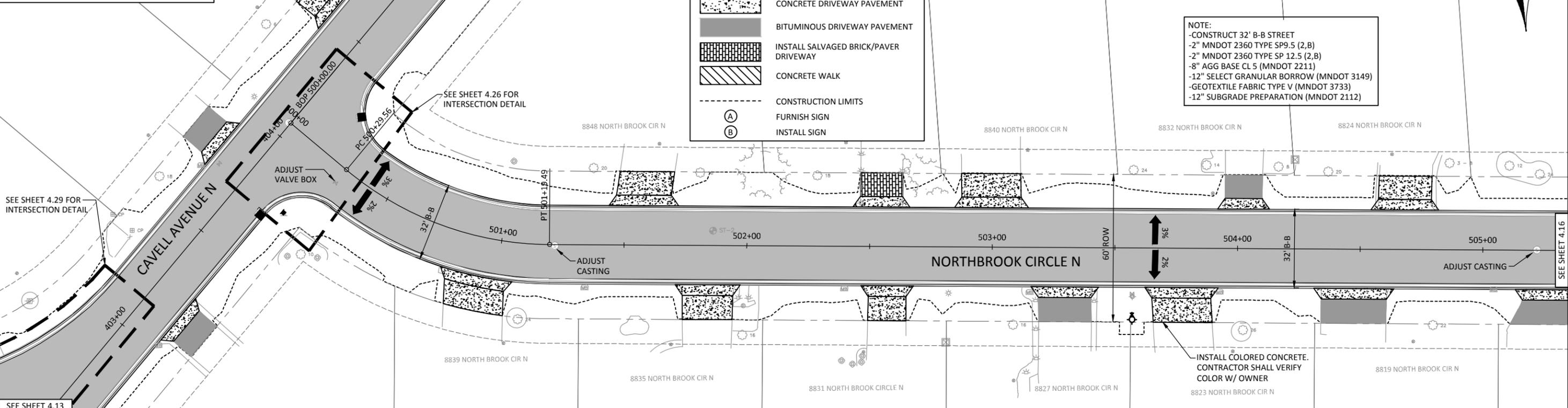
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CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN
AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND

DESIGNED: SAE
DRAWN: DDS
CHECKED: JZE

REV.	BY	DATE	CITY OF BROOKLYN PARK, MINNESOTA 2016 STREET RECONSTRUCTION PROJECT STREET CONSTRUCTION PLAN - CAVELL AVENUE N	SHEET 4.14 OF 108

LEGEND

- 2.09 EXISTING CONDITIONS & REMOVAL PLAN
- NA WATERMAIN
- 3.30 STORM SEWER
- 5.12 EROSION CONTROL & TURF ESTABLISHMENT



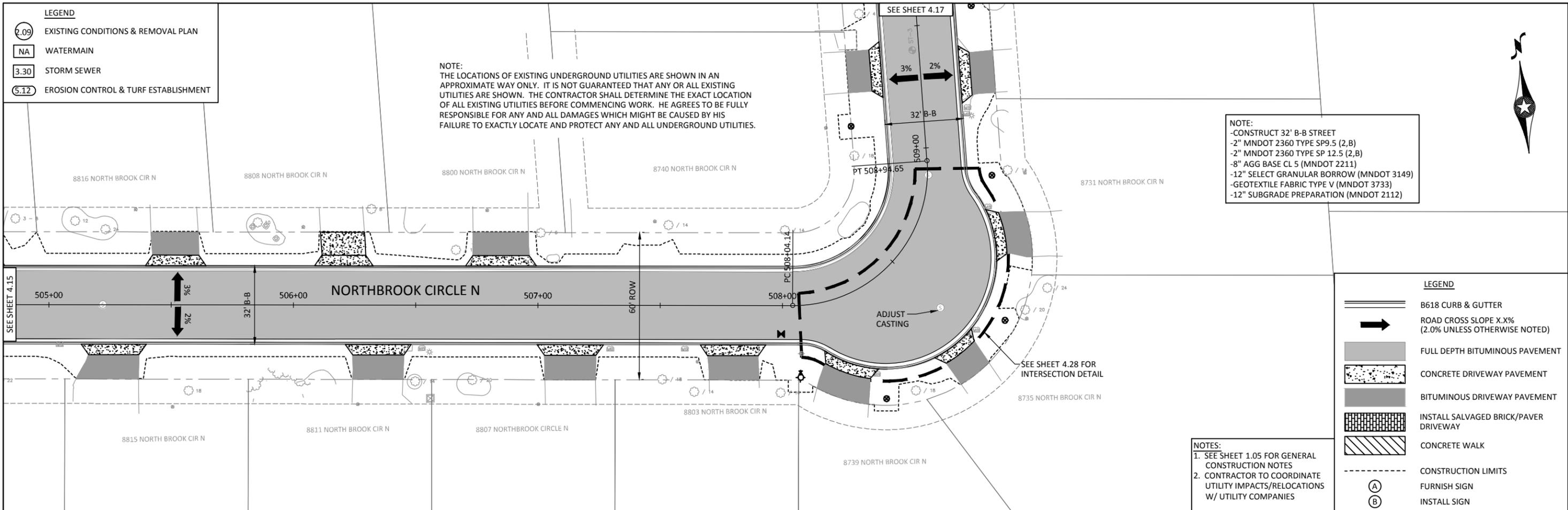
<p>HORIZ. SCALE: 0, 20, 40 FEET VERT. SCALE: 0, 5, 10 FEET</p>	<p>Brooklyn Park Unique. United. Undiscovered.</p>	<p>DESIGNED: SAE DRAWN: DDS CHECKED: JZE</p>	<p>BOLTON & MENK, INC. Consulting Engineers & Surveyors MANKATO, MN FAIRMONT, MN SLEEPY EYE, MN BURNSVILLE, MN WILLMAR, MN CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND</p>	<p>REV. BY DATE</p>	<p>CITY OF BROOKLYN PARK, MINNESOTA 2016 STREET RECONSTRUCTION PROJECT STREET CONSTRUCTION PLAN - NORTHBROOK CIRCLE</p>	<p>SHEET 4.15 OF 108</p>
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 H:\BRPK\C13110831\CAD\C3D\Sheets\110831_PP-EAST.dwg 1/18/16 6:27 pm
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LEGEND	
2.09	EXISTING CONDITIONS & REMOVAL PLAN
NA	WATERMAIN
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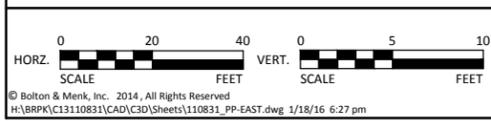
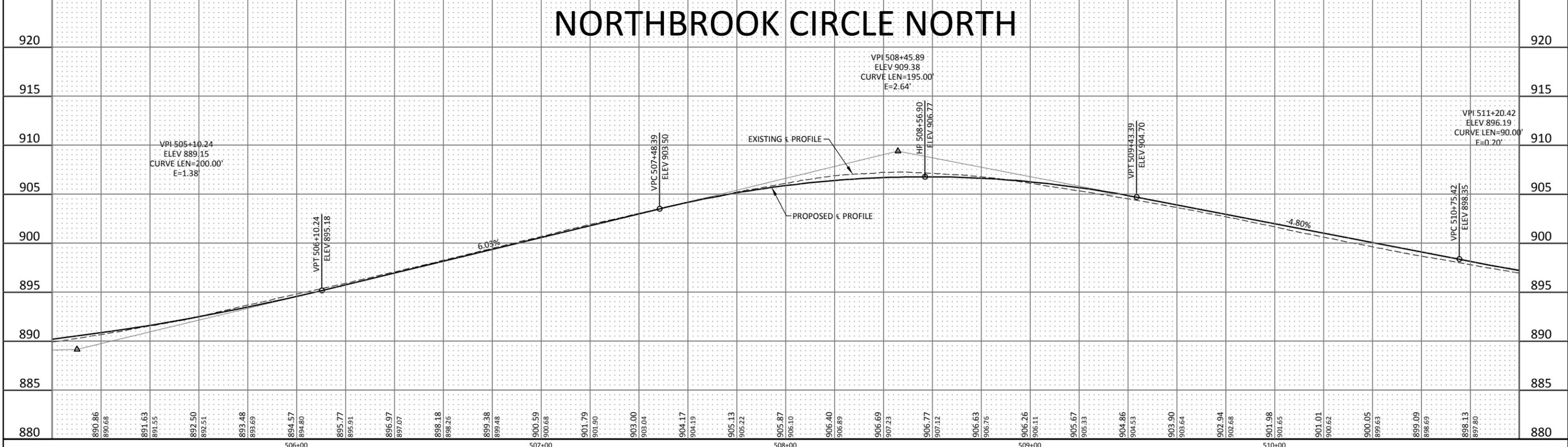
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LEGEND	
	8618 CURB & GUTTER
	ROAD CROSS SLOPE X.X% (2.0% UNLESS OTHERWISE NOTED)
	FULL DEPTH BITUMINOUS PAVEMENT
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	CONCRETE WALK
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	FURNISH SIGN
	INSTALL SIGN

NOTES:
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2. CONTRACTOR TO COORDINATE UTILITY IMPACTS/RELOCATIONS W/ UTILITY COMPANIES

NORTHBROOK CIRCLE NORTH



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REV.	BY	DATE	CITY OF BROOKLYN PARK, MINNESOTA		SHEET
			2016 STREET RECONSTRUCTION PROJECT		4.16
			STREET CONSTRUCTION PLAN - NORTHBROOK CIRCLE		OF 108

LEGEND

2.10	EXISTING CONDITIONS & REMOVAL PLAN
3.14	WATERMAIN
NA	STORM SEWER
5.13	EROSION CONTROL & TURF ESTABLISHMENT

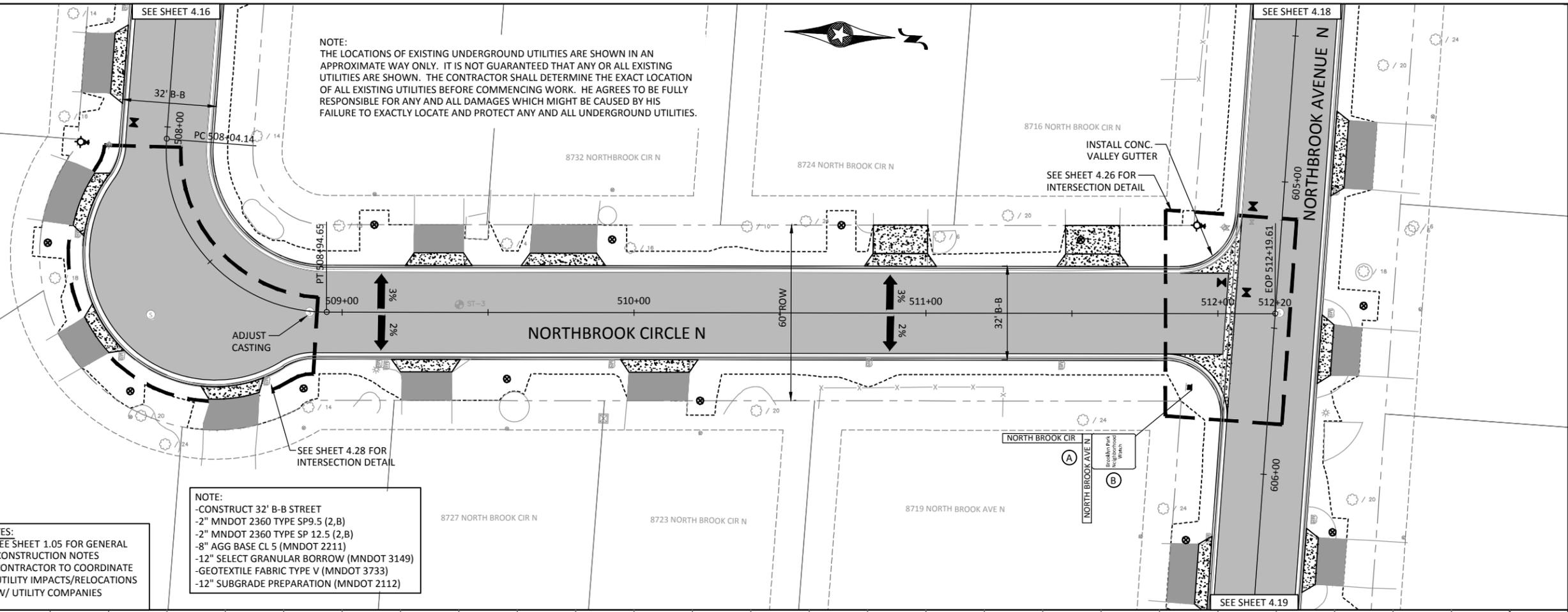
LEGEND

	B618 CURB & GUTTER
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	CONSTRUCTION LIMITS
(A)	FURNISH SIGN
(B)	INSTALL SIGN

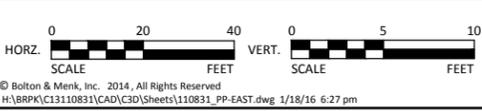
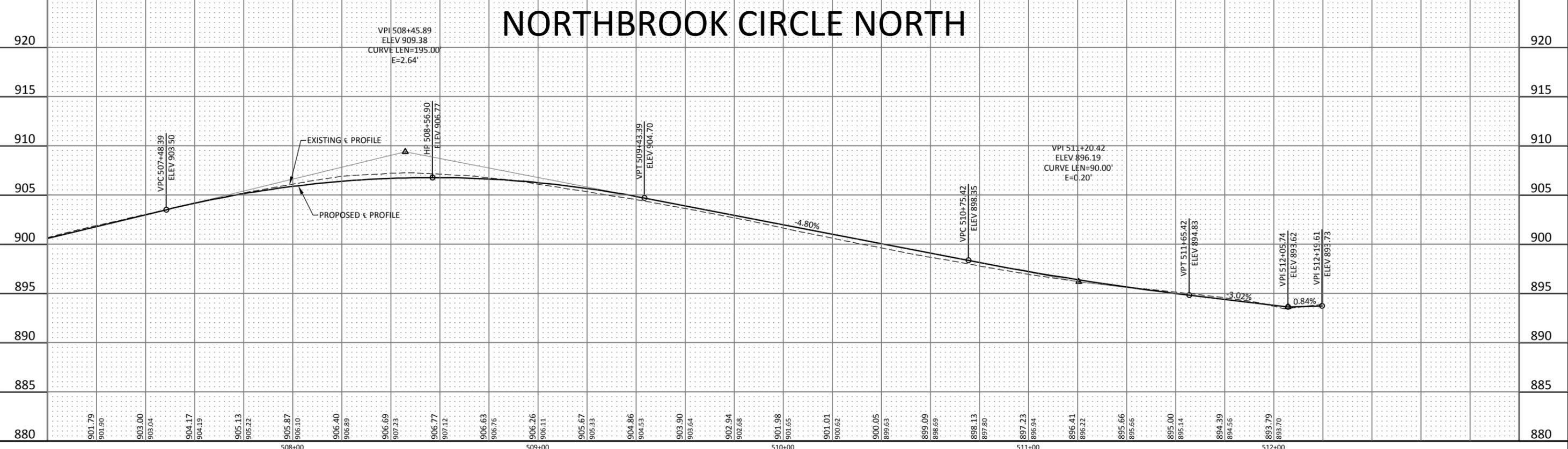
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NORTHBROOK CIRCLE NORTH



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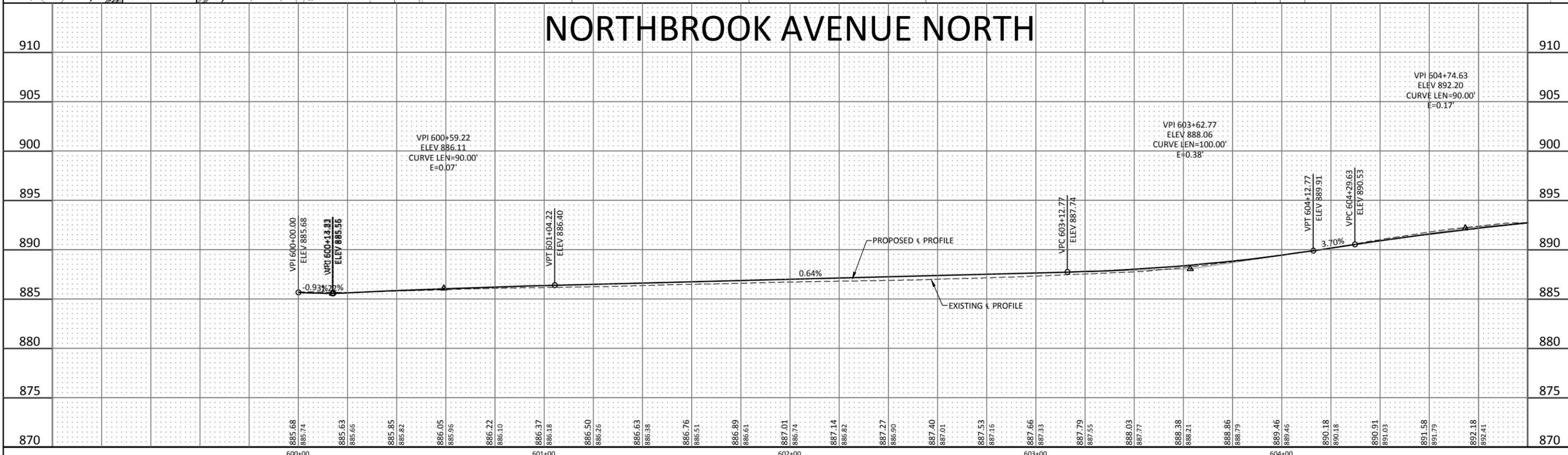
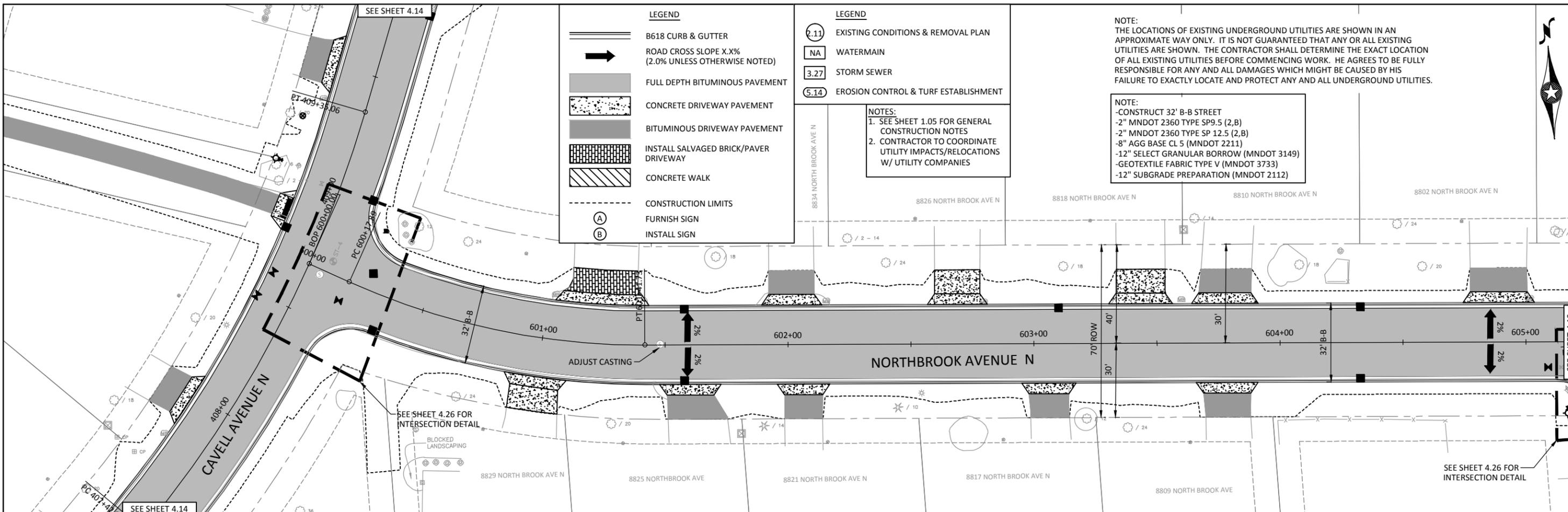
DESIGNED: SAE
 DRAWN: DDS
 CHECKED: JZE

REV.	BY	DATE

CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT

STREET CONSTRUCTION PLAN - NORTHBROOK CIRCLE

SHEET 4.17 OF 108

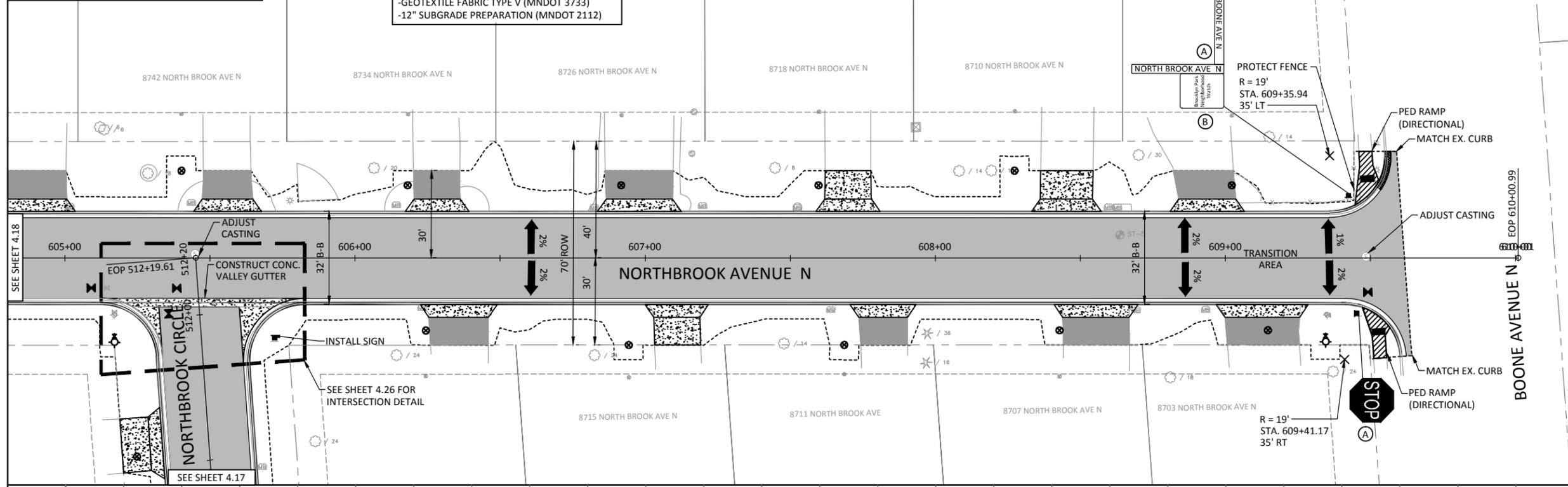


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REV.	BY	DATE																

- LEGEND**
- 2.11 EXISTING CONDITIONS & REMOVAL PLAN
 - 3.15 WATERMAIN
 - 3.19 SANITARY
 - 5.14 EROSION CONTROL & TURF ESTABLISHMENT

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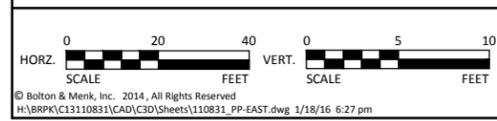
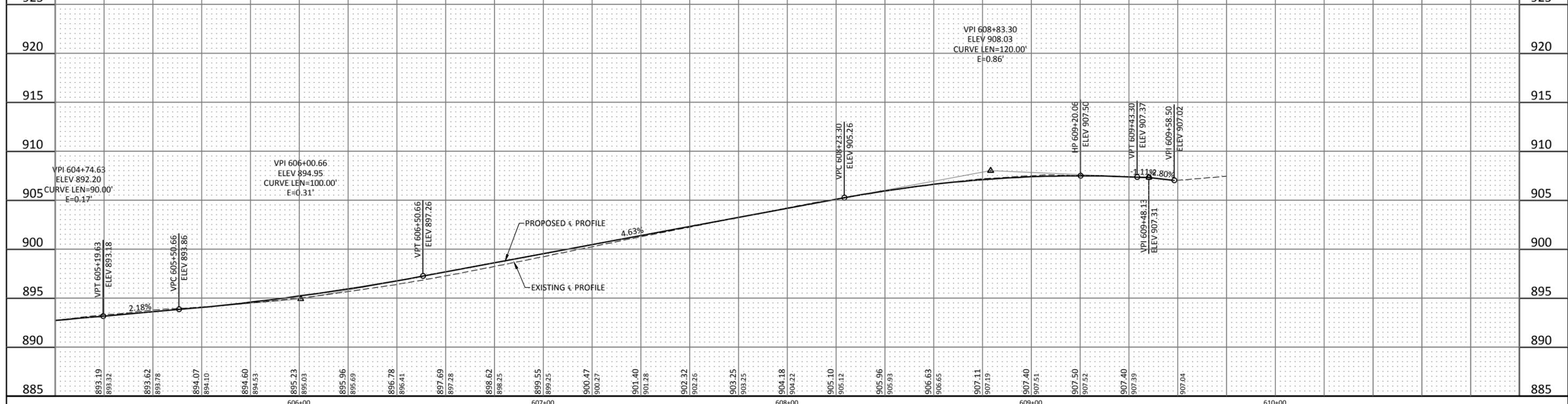
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- NOTES:**
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 2. CONTRACTOR TO COORDINATE UTILITY IMPACTS/RELOCATIONS W/ UTILITY COMPANIES

- LEGEND**
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 - ROAD CROSS SLOPE X.X% (2.0% UNLESS OTHERWISE NOTED)
 - FULL DEPTH BITUMINOUS PAVEMENT
 - CONCRETE DRIVEWAY PAVEMENT
 - BITUMINOUS DRIVEWAY PAVEMENT
 - INSTALL SALVAGED BRICK/PAVER DRIVEWAY
 - CONCRETE WALK
 - CONSTRUCTION LIMITS
 - FURNISH SIGN
 - INSTALL SIGN

NORTHBROOK AVENUE NORTH



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REV.	BY	DATE	CITY OF BROOKLYN PARK, MINNESOTA 2016 STREET RECONSTRUCTION PROJECT	SHEET 4.19 OF 108
			STREET CONSTRUCTION PLAN-NORTHBROOK AVENUE N	

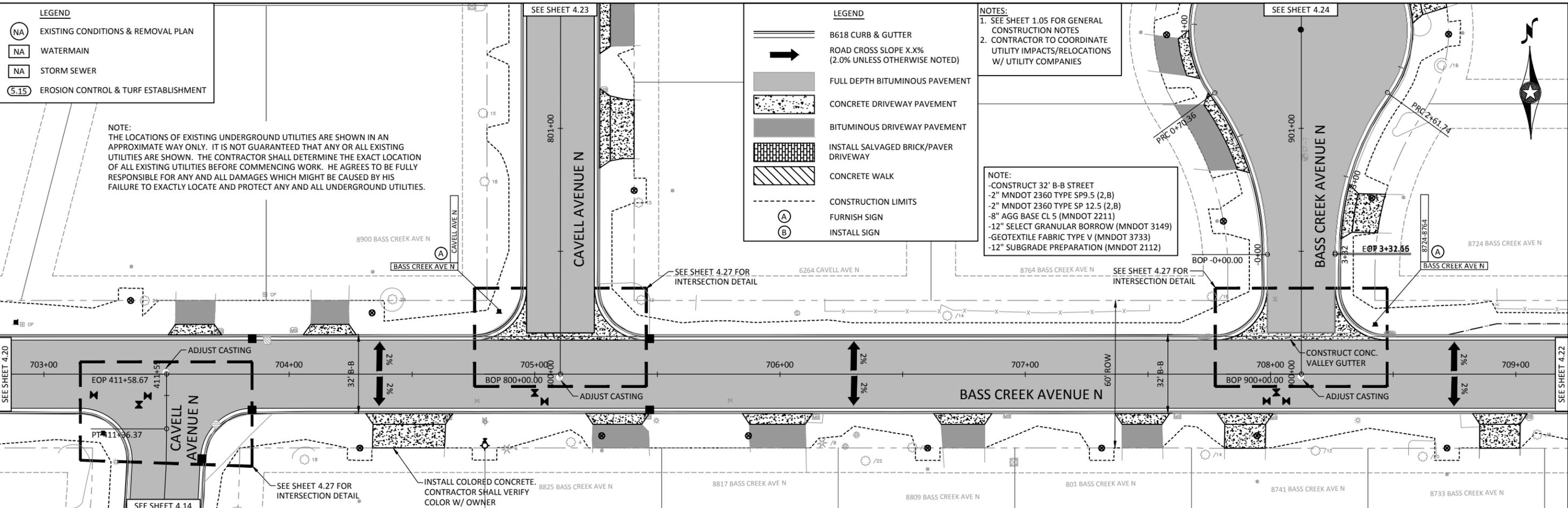
- LEGEND**
- EXISTING CONDITIONS & REMOVAL PLAN
 - WATERMAIN
 - STORM SEWER
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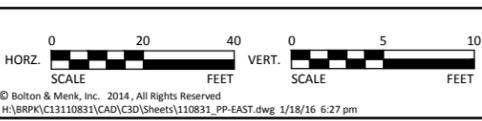
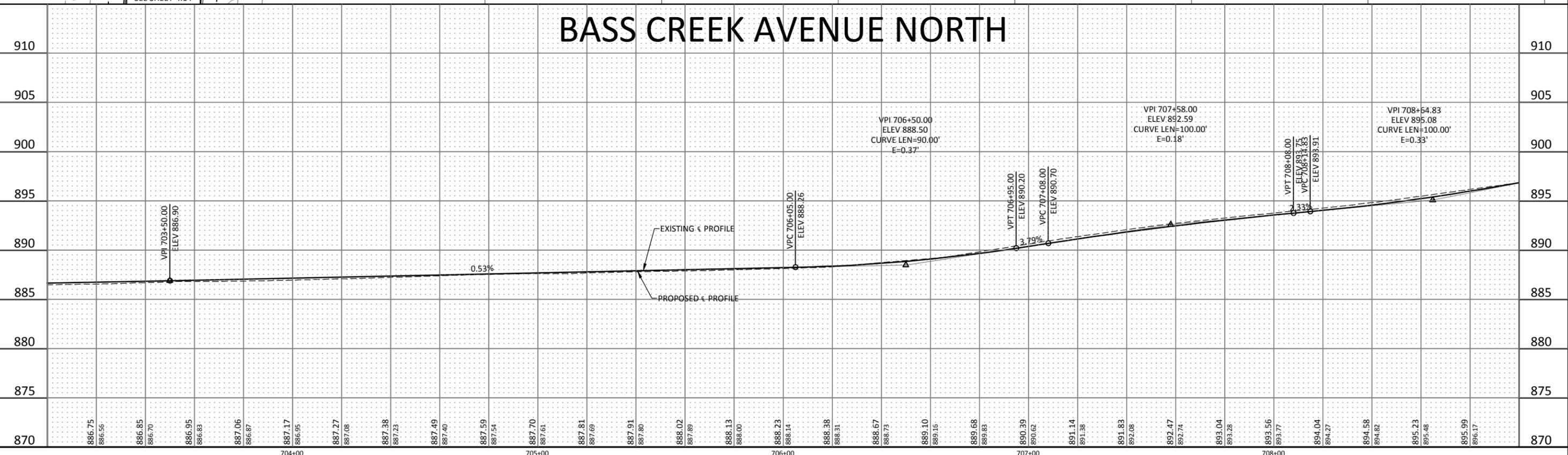
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BASS CREEK AVENUE NORTH

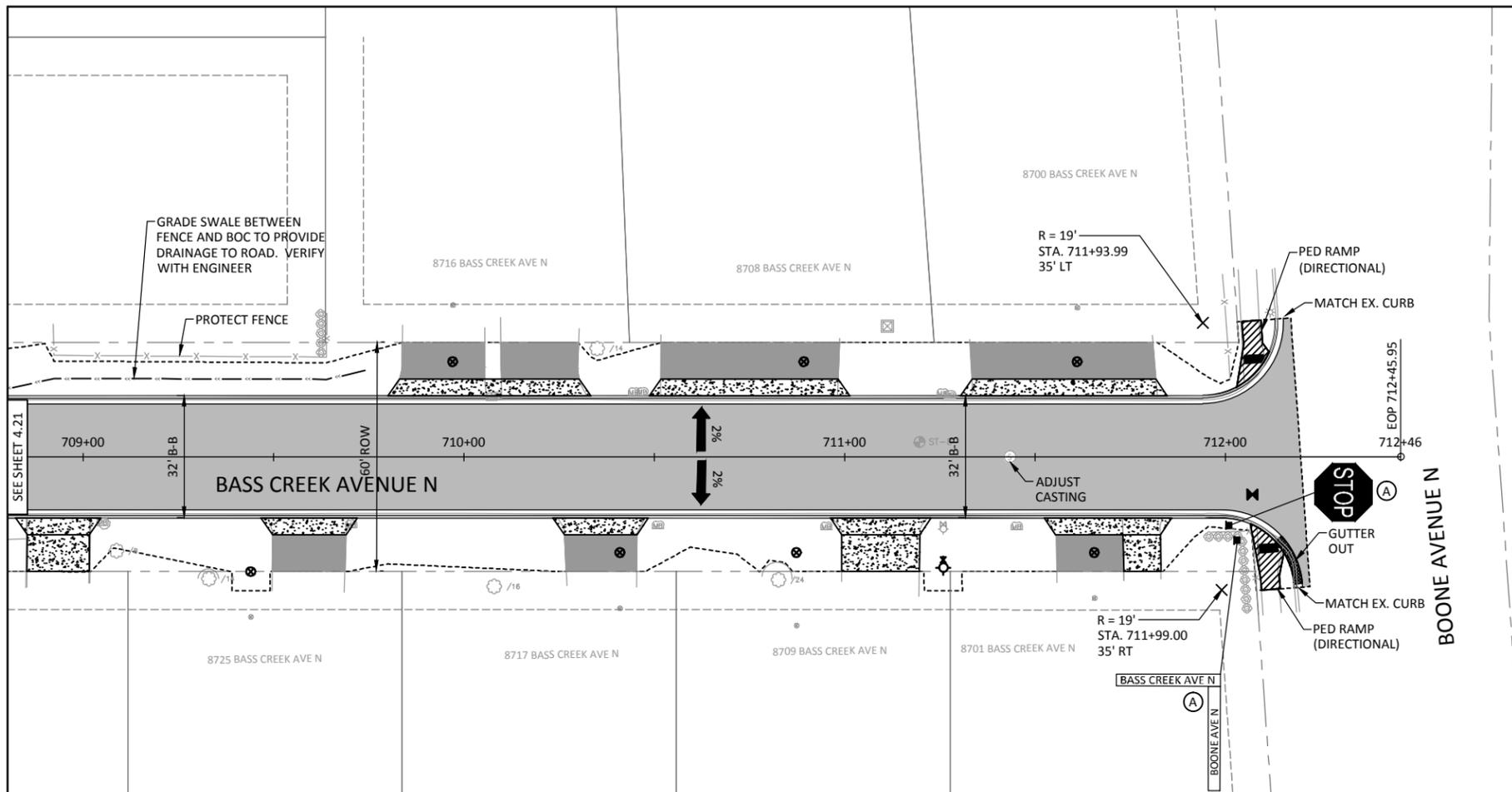


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REV.	BY	DATE	CITY OF BROOKLYN PARK, MINNESOTA 2016 STREET RECONSTRUCTION PROJECT STREET CONSTRUCTION PLAN - BASS CREEK AVENUE N	SHEET 4.21 OF 108



LEGEND

- B618 CURB & GUTTER
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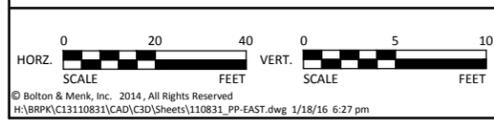
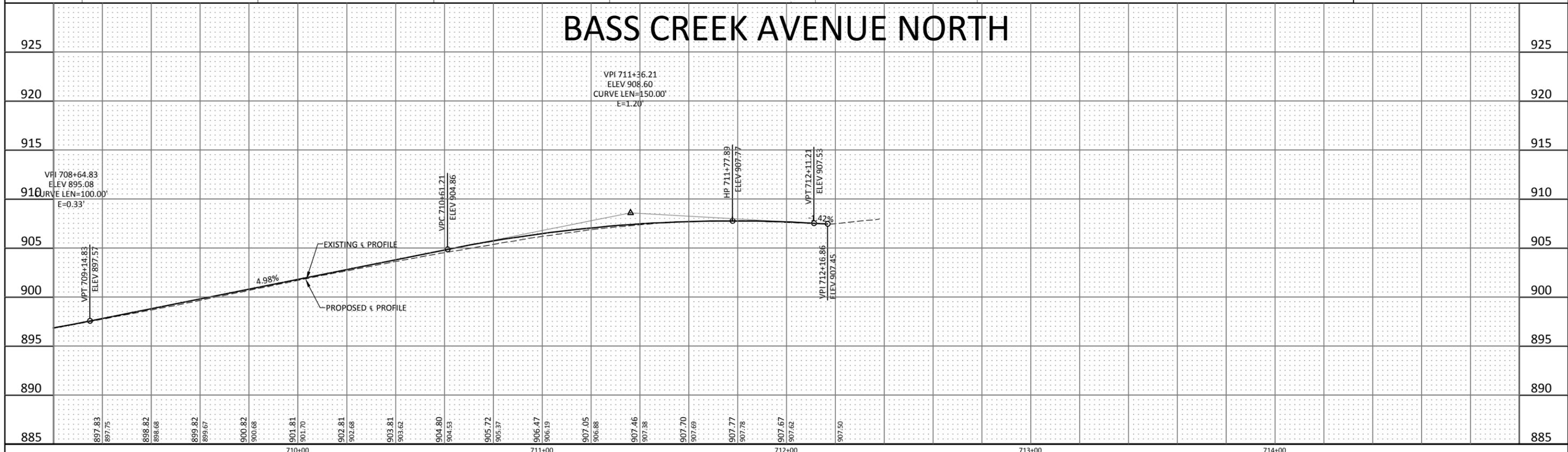


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LEGEND

- EXISTING CONDITIONS & REMOVAL PLAN
- WATERMAIN
- STORM SEWER
- EROSION CONTROL & TURF ESTABLISHMENT



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DESIGNED: SAE
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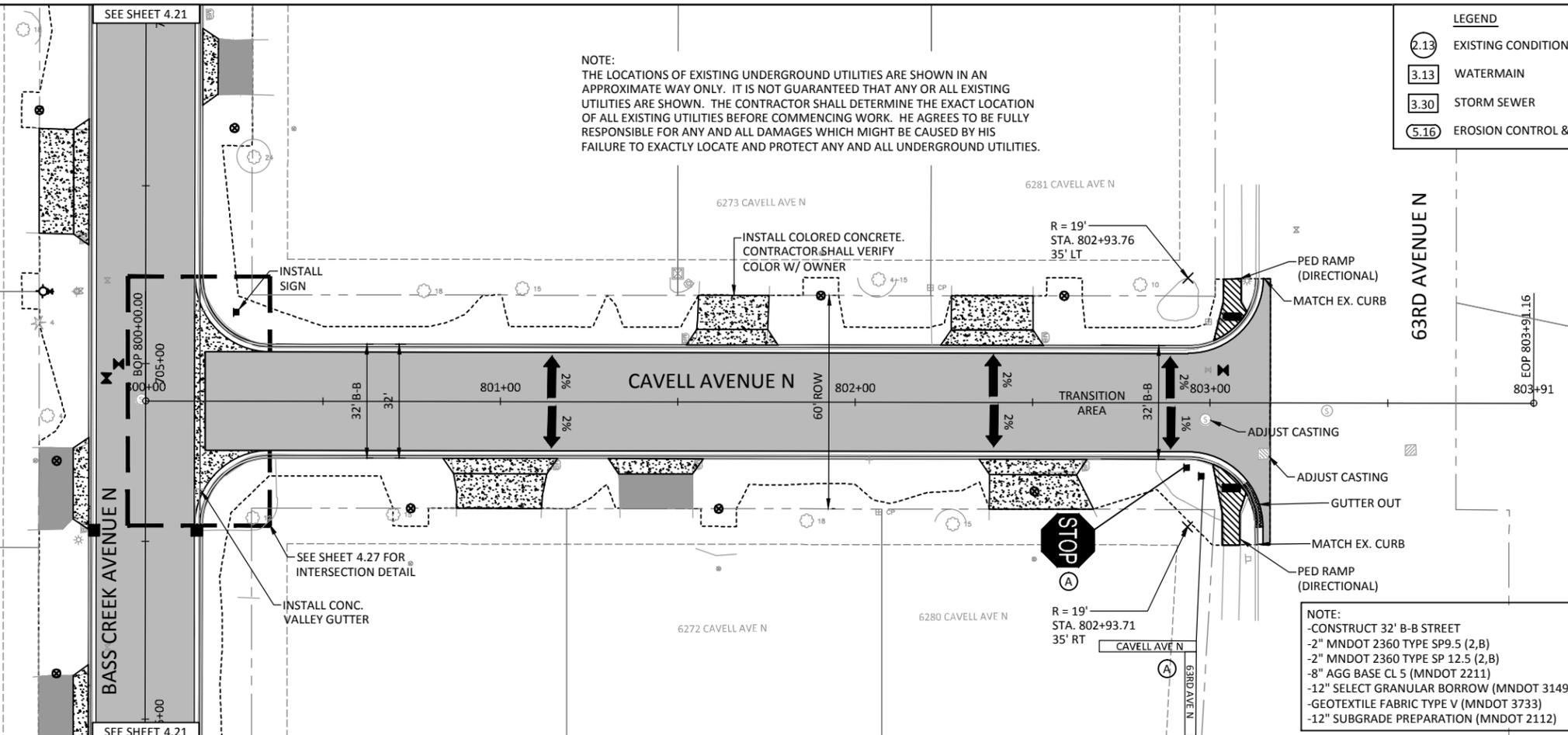
REV.	BY	DATE

CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 STREET CONSTRUCTION PLAN - BASS CREEK AVENUE N

SHEET 4.22 OF 108

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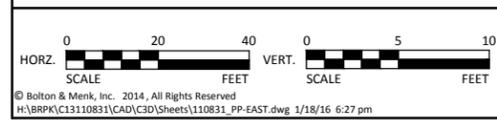
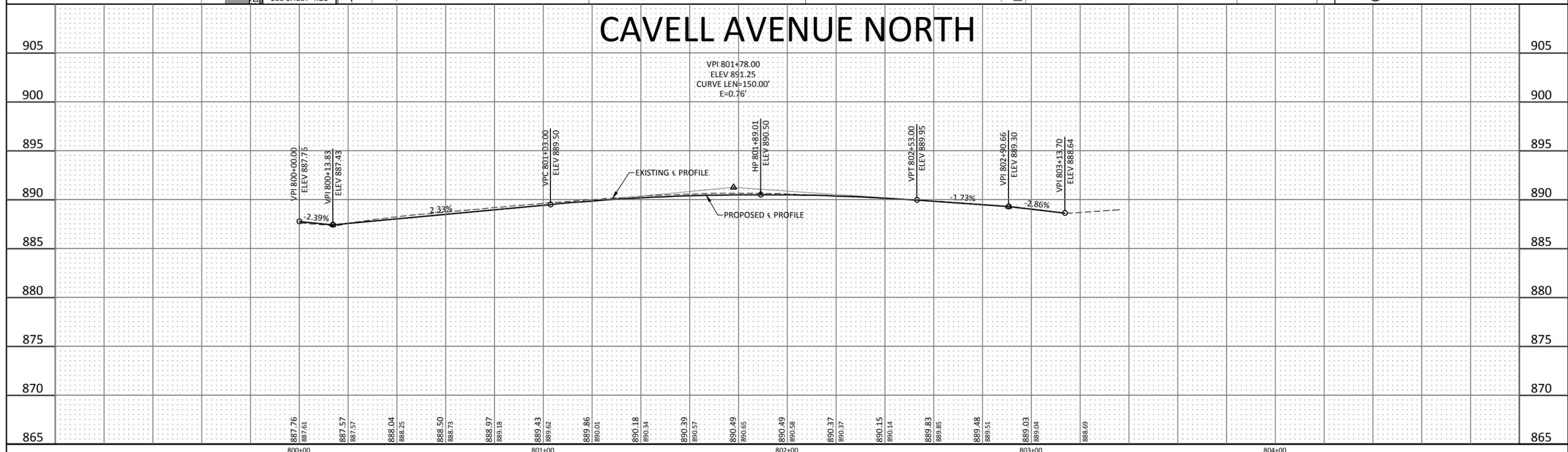


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-CONSTRUCT 32' B-B STREET
-2" MNDOT 2360 TYPE SP9.5 (2,B)
-2" MNDOT 2360 TYPE SP 12.5 (2,B)
-8" AGG BASE CL 5 (MNDOT 2211)
-12" SELECT GRANULAR BORROW (MNDOT 3149)
-GEOTEXTILE FABRIC TYPE V (MNDOT 3733)
-12" SUBGRADE PREPARATION (MNDOT 2112)

CAVELL AVENUE NORTH



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Joshua Eckstein
JOSHUA ECKSTEIN
LIC. NO. 48224 DATE 01/15/2016

BOLTON & MENK, INC.
Consulting Engineers & Surveyors
MANKATO, MN FAIRMONT, MN SLEEPY EYE, MN BURNSVILLE, MN WILLMAR, MN
CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN
AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND

REV.	BY	DATE

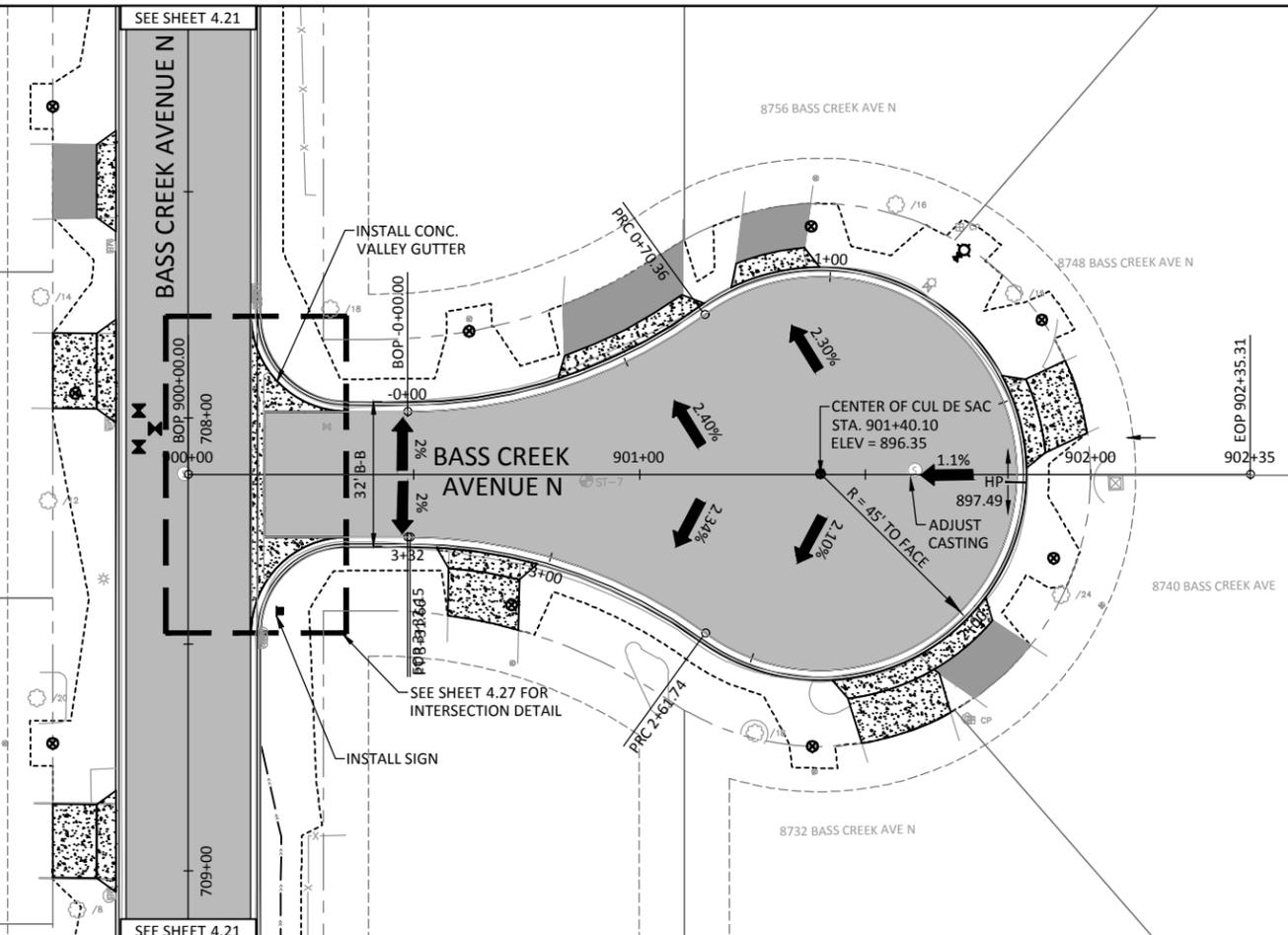
CITY OF BROOKLYN PARK, MINNESOTA		SHEET 4.23 OF 108
2016 STREET RECONSTRUCTION PROJECT		
STREET CONSTRUCTION PLAN - CAVELL AVENUE N		

LEGEND

2.14	EXISTING CONDITIONS & REMOVAL PLAN
3.16	WATERMAIN
NA	STORM SEWER
5.17	EROSION CONTROL & TURF ESTABLISHMENT



NOTE:
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. IT IS NOT GUARANTEED THAT ANY OR ALL EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PROTECT ANY AND ALL UNDERGROUND UTILITIES.

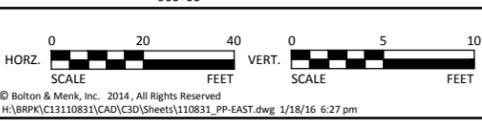
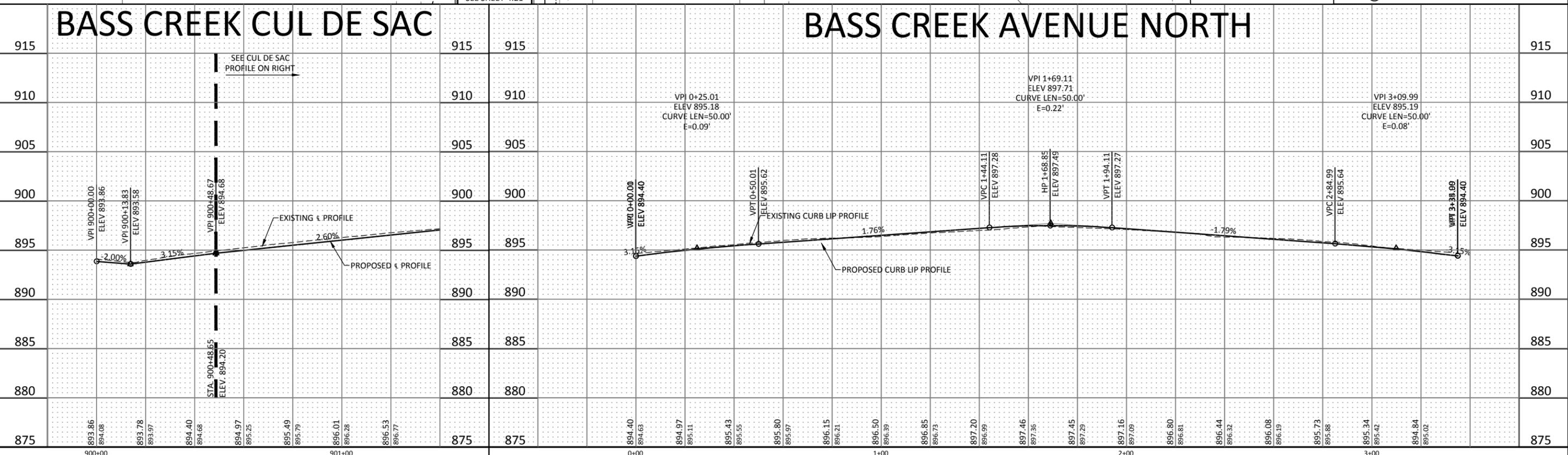


NOTE:
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-GEOTEXTILE FABRIC TYPE V (MNDOT 3733)
-12" SUBGRADE PREPARATION (MNDOT 2112)

NOTES:
1. SEE SHEET 1.05 FOR GENERAL CONSTRUCTION NOTES
2. CONTRACTOR TO COORDINATE UTILITY IMPACTS/RELOCATIONS W/ UTILITY COMPANIES

LEGEND

	8618 CURB & GUTTER
	ROAD CROSS SLOPE X.X% (2.0% UNLESS OTHERWISE NOTED)
	FULL DEPTH BITUMINOUS PAVEMENT
	CONCRETE DRIVEWAY PAVEMENT
	BITUMINOUS DRIVEWAY PAVEMENT
	INSTALL SALVAGED BRICK/PAVER DRIVEWAY
	CONCRETE WALK
	CONSTRUCTION LIMITS
	FURNISH SIGN
	INSTALL SIGN



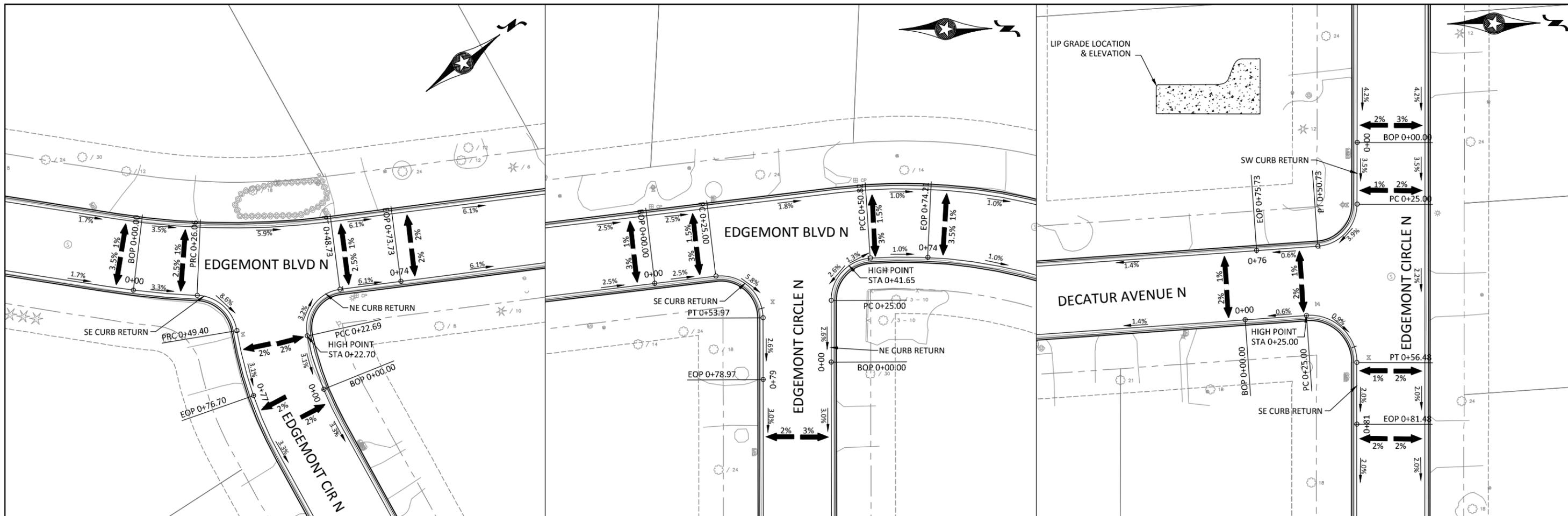
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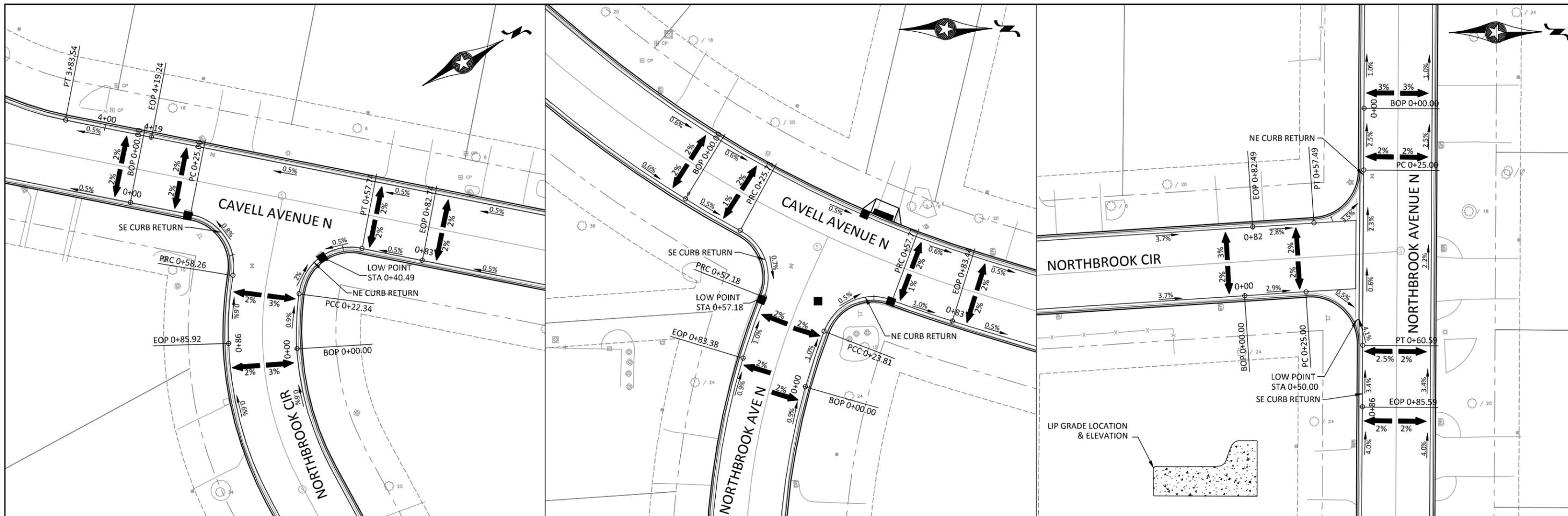
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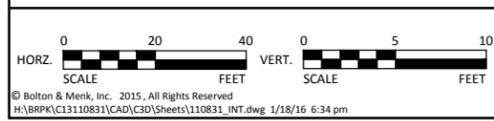
REV.	BY	DATE	CITY OF BROOKLYN PARK, MINNESOTA 2016 STREET RECONSTRUCTION PROJECT STREET CONSTRUCTION PLAN - BASS CREEK AVENUE N	SHEET 4.24 OF 108



NE CURB RETURN				NE CURB RETURN				SE CURB RETURN			
920				920	925			925	905		
915				915	920			920	900		
910				910	915			915	895		
905				905	910			910	890		
	-0+40	0+00	1+00		-0+40	0+00	1+00		-0+40	0+00	1+00
SE CURB RETURN				SE CURB RETURN				SW CURB RETURN			
920				920	925			925	905		
915				915	920			920	900		
910				910	915			915	895		
905				905	910			910	890		
	-0+40	0+00	1+00		-0+40	0+00	1+00		-0+40	0+00	1+00



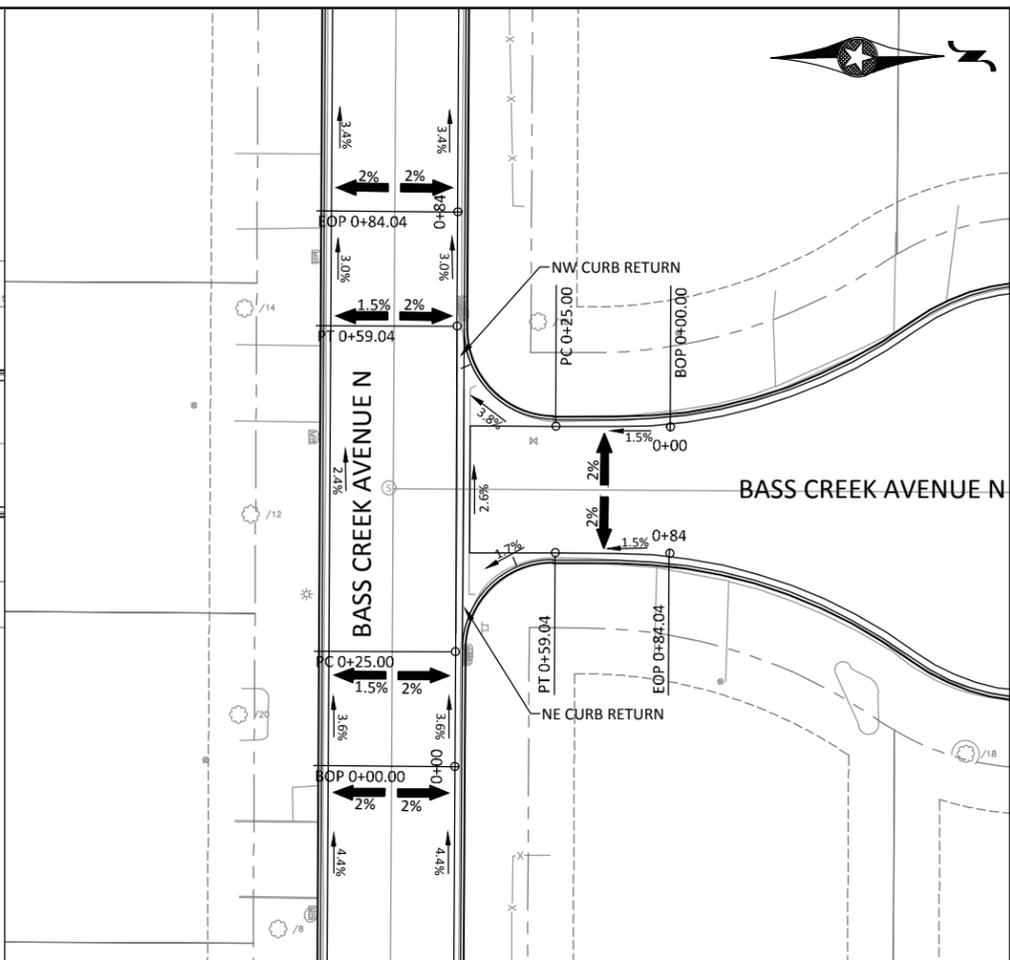
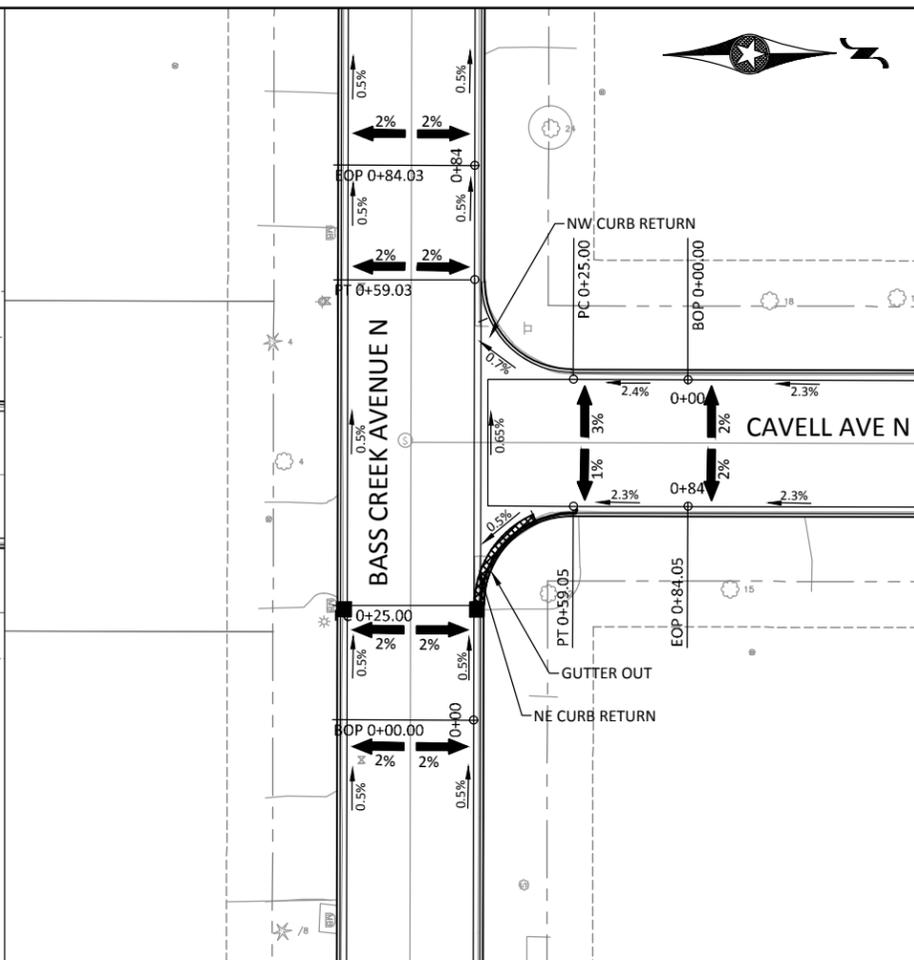
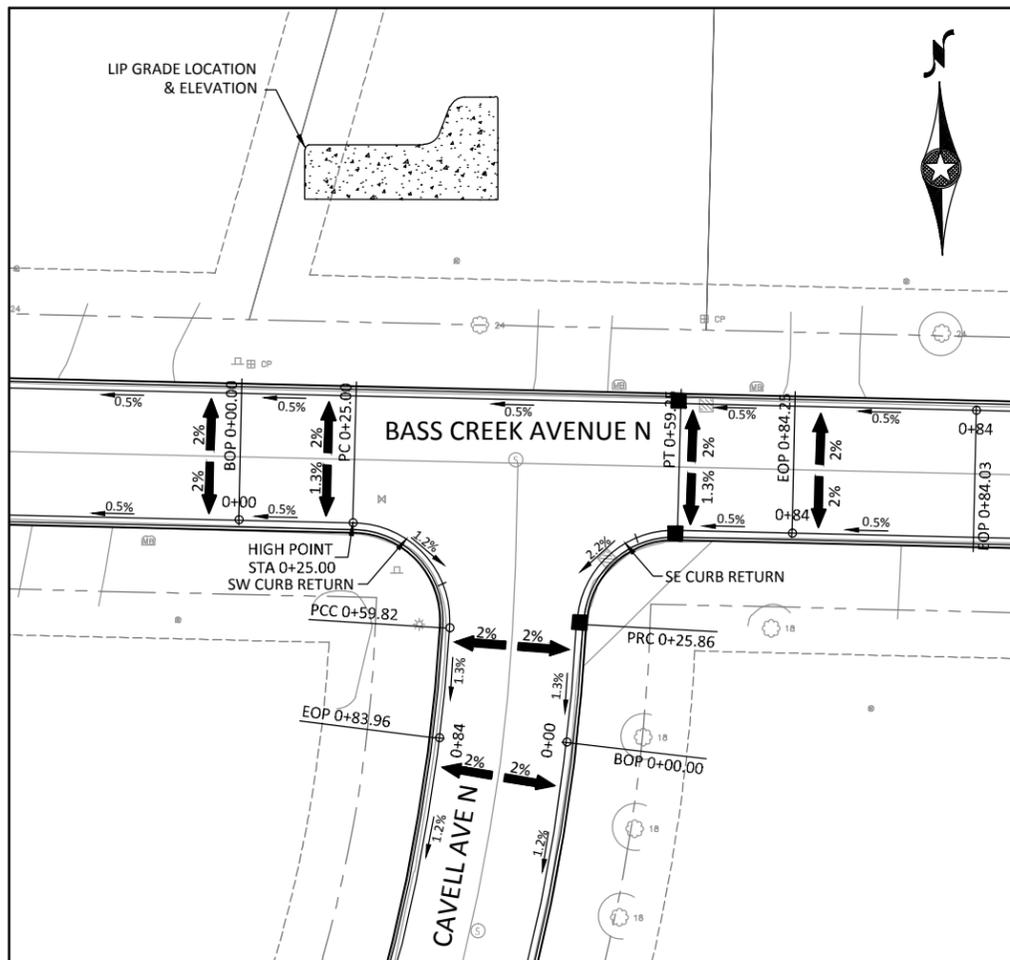
NE CURB RETURN				NE CURB RETURN				SE CURB RETURN			
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890				890	890			890	895		
885				885	885			885	890		
880				880	880			880	885		
-0+40	0+00	1+00	1+40	-0+40	0+00	1+00	1+20	-0+40	0+00	1+00	1+40
SE CURB RETURN				SE CURB RETURN				SW CURB RETURN			
895				895	895			895	900		
890				890	890			890	895		
885				885	885			885	890		
880				880	880			880	885		
-0+40	0+00	1+00	1+40	-0+40	0+00	1+00	1+20	-0+40	0+00	1+00	1+40



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 DRAWN: DDS
 CHECKED: JZE
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 CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN
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REV.	BY	DATE	CITY OF BROOKLYN PARK, MINNESOTA 2016 STREET RECONSTRUCTION PROJECT INTERSECTION DETAIL	SHEET 4.26 OF 108



SE CURB RETURN			
895		895	895
890		890	890
885		885	885
880		880	880
-0+40	0+00	1+00	1+40

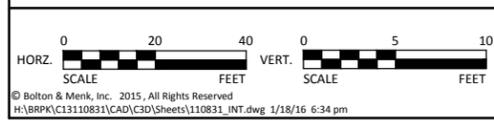
NW CURB RETURN			
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890	900	890	900
885	895	885	895
880	890	880	890
-0+20	0+00	1+00	1+40

NW CURB RETURN			
895	905	895	905
890	900	890	900
885	895	885	895
880	890	880	890
-0+40	0+00	1+00	1+40

SW CURB RETURN			
895		895	
890		890	
885		885	
880		880	
-0+40	0+00	1+00	1+40

NE CURB RETURN			
895	905	895	905
890	900	890	900
885	895	885	895
880	890	880	890
-0+20	0+00	1+00	1+40

NE CURB RETURN			
895	905	895	905
890	900	890	900
885	895	885	895
880	890	880	890
-0+40	0+00	1+00	1+40



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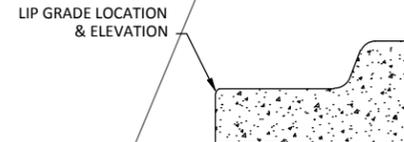
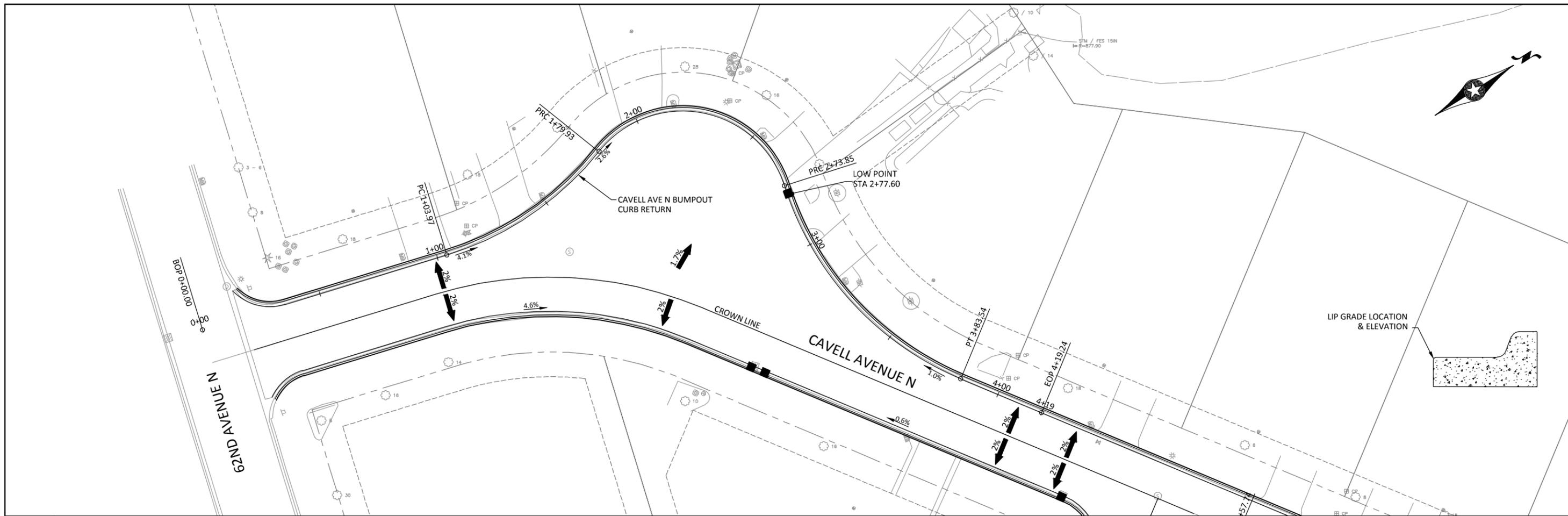
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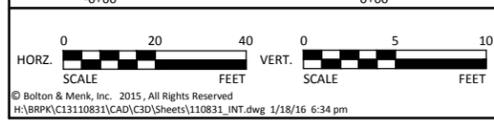
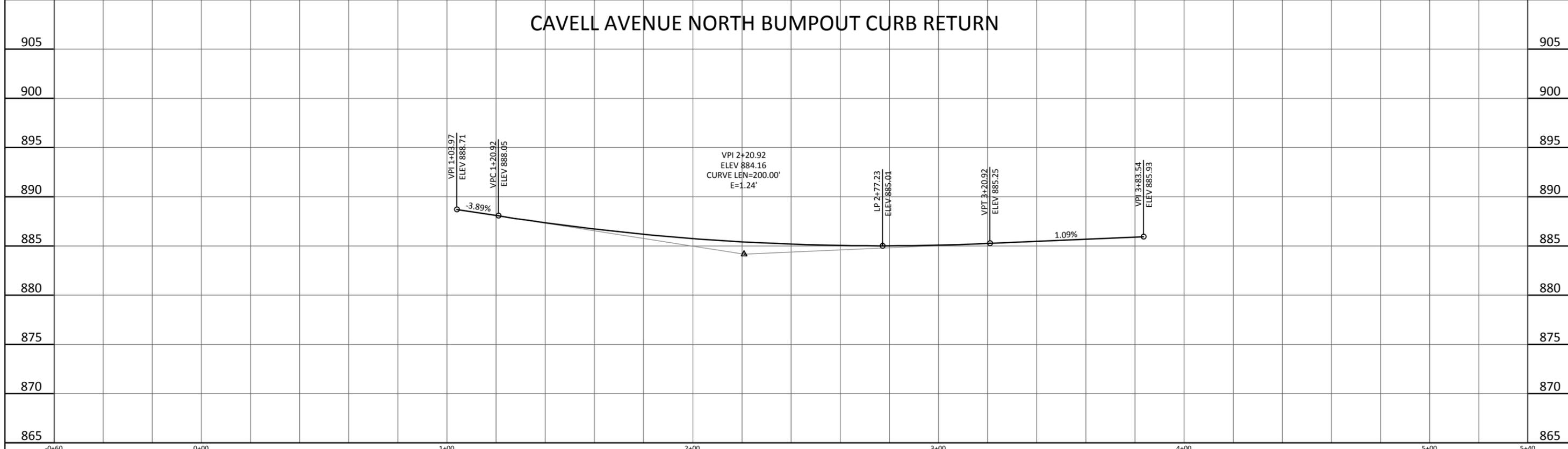
REV.	BY	DATE

CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 INTERSECTION DETAIL

SHEET 4.27 OF 108



CAVELL AVENUE NORTH BUMPOUT CURB RETURN



Brooklyn Park
 Unique. United. Undiscovered.

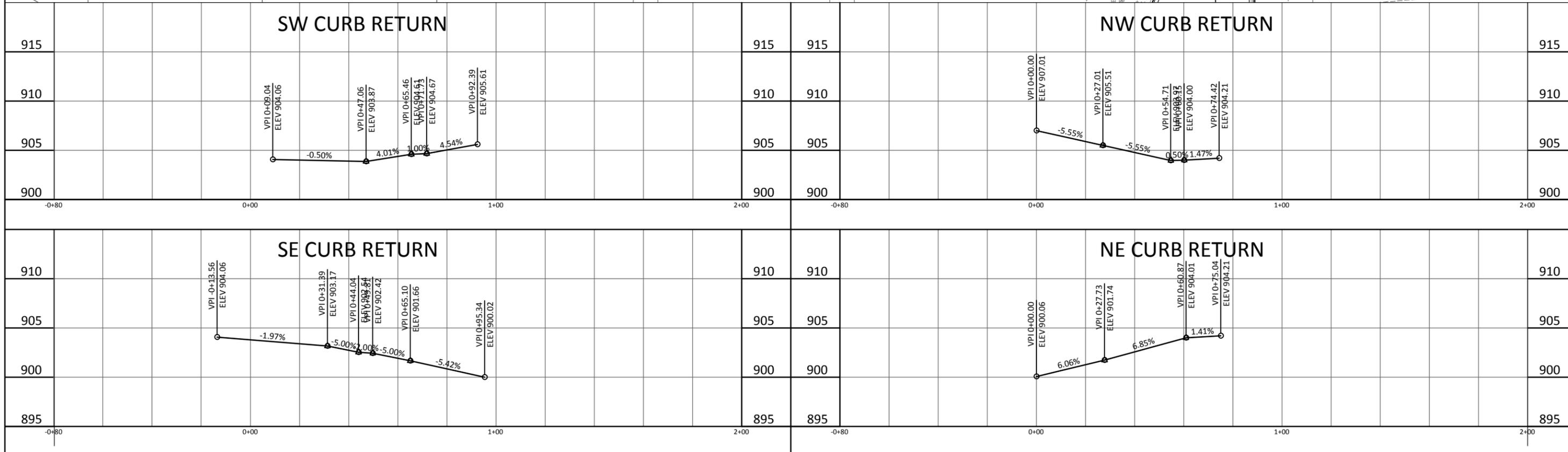
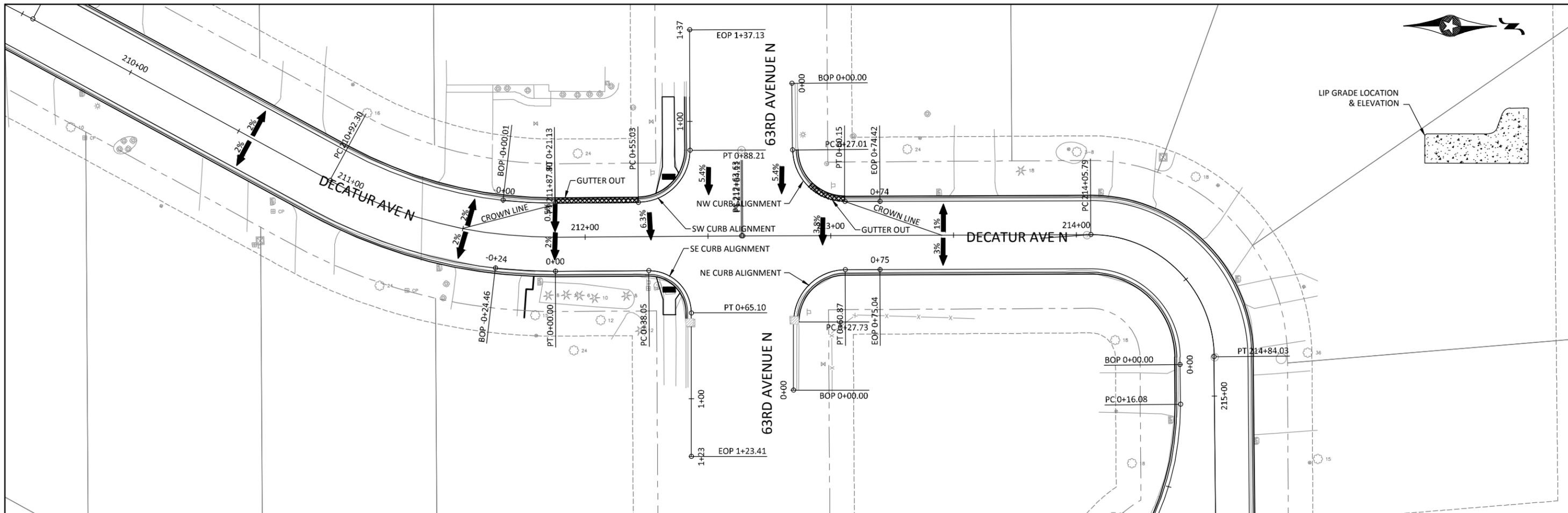
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 CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN
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REV.	BY	DATE

CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 INTERSECTION DETAIL

SHEET 4.29 OF 108



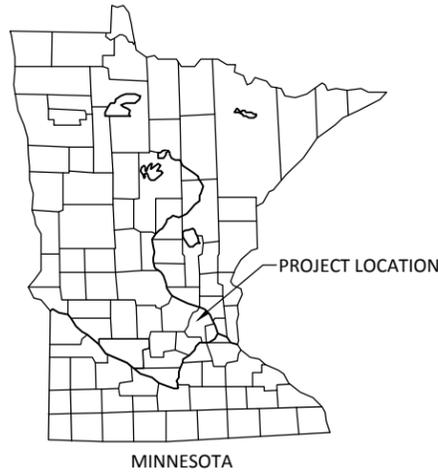
		I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. JOSHUA ECKSTEIN LIC. NO. 48224 DATE 01/15/2016	DESIGNED: SAE DRAWN: DDS CHECKED: JZE	BOLTON & MENK, INC. Consulting Engineers & Surveyors MANKATO, MN FAIRMONT, MN SLEEPY EYE, MN BURNSVILLE, MN WILLMAR, MN CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND	REV. BY DATE	CITY OF BROOKLYN PARK, MINNESOTA 2016 STREET RECONSTRUCTION PROJECT INTERSECTION DETAIL	SHEET 4.30 OF 108
					© Bolton & Menk, Inc. 2015, All Rights Reserved H:\BRPK\C13110831\CAD\C3D\Sheets\110831_INT.dwg 1/18/16 6:34 pm		

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

2016 Reconstruction Project
Brooklyn Park
Hennepin County, Minnesota

SWPPP DESIGNER:

UNIVERSITY OF MINNESOTA
Mark L Perry
Construction Installer (May 31 2016)
Design of Construction SWPPP (May 31 2017)



LEGEND

- PROJECT BOUNDARY
- NATIONAL WETLANDS INVENTORY
- DWSMA, MODERATE VULNERABILITY
- IMPAIRED, SPECIAL OR PROTECTED WATERS
- IMPAIRED, SPECIAL OR PROTECTED WATERS

PROJECT AREAS:
Total Project Size (disturbed area) = 13.7 ACRES
Existing area of impervious surface = 8.1 ACRES
Post construction area of impervious surface = 8.1 ACRES
Total new impervious surface area created = 0.0 ACRES

Planned Construction Start Date: 5/01/2016
Estimated Construction Completion Date: 10/31/2016

PERMANENT STORMWATER MANAGEMENT SYSTEM:

Type of storm water management used if more than 1 acre of new impervious surface is created:

<input type="checkbox"/>	Wet Sedimentation Basin
<input type="checkbox"/>	Infiltration/Filtration
<input type="checkbox"/>	Regional Pond
<input checked="" type="checkbox"/>	Permanent Storm Water Management Not Required

PROJECT LOCATION:

COUNTY	TOWNSHIP	RANGE	SECTION	LATITUDE	LONGITUDE
Hennepin	119	27	31	45.069278	-93.395494

BMP SUMMARY	QUANTITY	UNIT
Temporary Rock Construction Entrance	9	Each
Silt Fence, Type Machine Sliced	1200	LF
Storm Drain Inlet Protection	61	Each
Random Rip Rap Class III	23	TON
Filter Log Type Straw Bioroll 12"	300	LF
Sodding Type Lawn	34070	SQ YD
Erosion Control Blanket Cat. 3 W/ Seed Mix 34-262	1687	SQ YD
Erosion Control Blanket Cat. 3 W/ Seed Mix 25-131	1948	SQ YD

DESCRIPTION OF CONSTRUCTION ACTIVITIES AND STORMWATER MANAGEMENT:

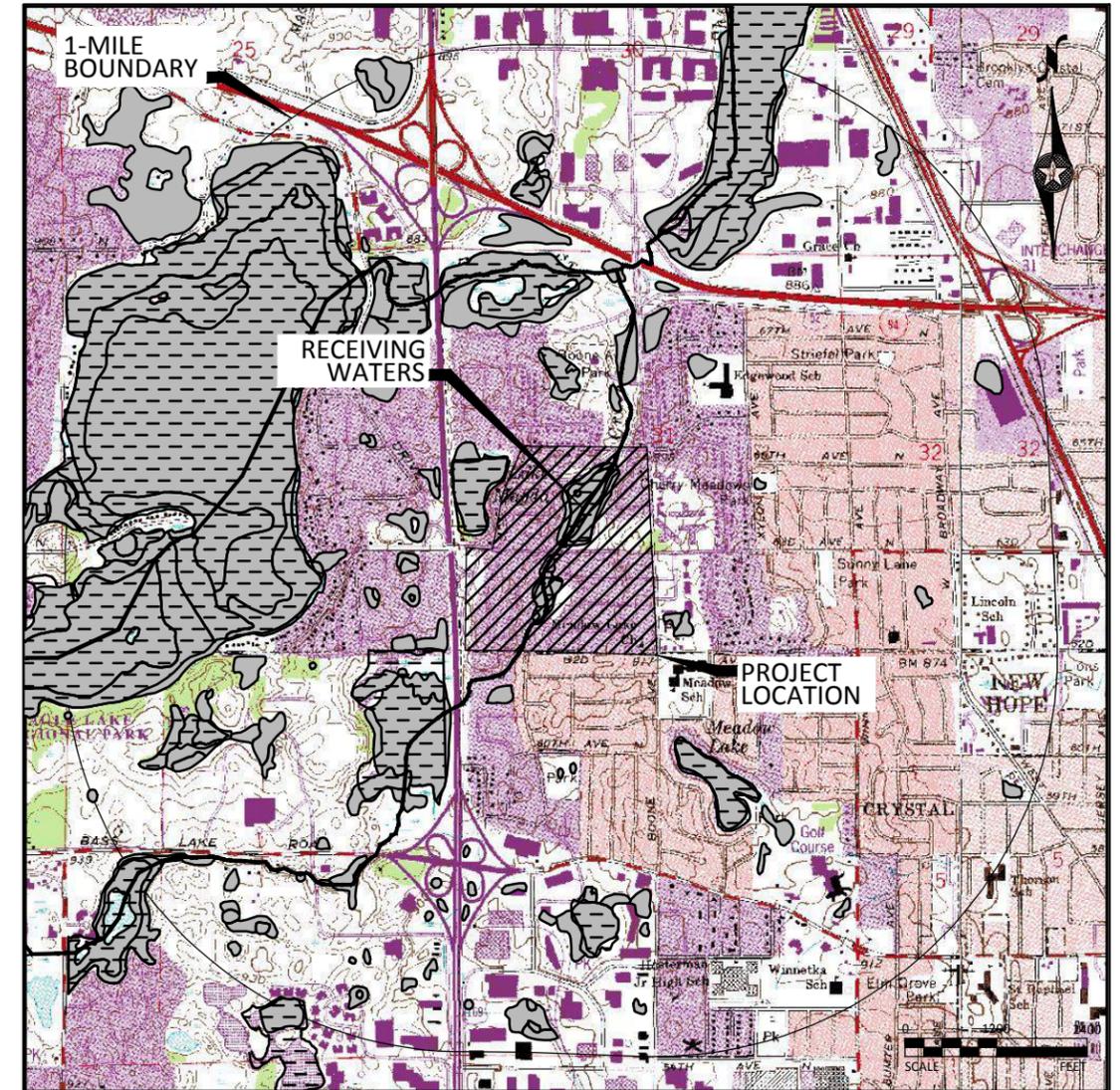
Construction activities include: Bituminous removal and replacement, utility replacement including storm water, sanitary sewer and water main extensions, temporary erosion and sediment control, and permanent stabilization.

The 2016 Brooklyn Park Street Reconstruction project is replacing worn out bituminous and associated infrastructure. Storm water all flows toward Bass Creek. This will not be altered. Bass Creek flows north into Shingle Creek. There is no new impervious area proposed so no storm water treatment is required to be added. Some volume treatment may be added to provide better protection from nuisance flooding in the back yards of properties on the north side of Cavalle Park or along Bass Creek. Storm water outlet protection will be improved to reduce down-slope erosion.

DOCUMENT RETENTION

The following documentation will be retained for a period of not less than 3-years from the date of submittal of the NOT in compliance with Part III.E of the Permit.

- The final SWPPP
- Copies of all stormwater related permits required for the project
- Records of all inspection and maintenance conducted during construction
- Copies of all permanent operation and maintenance agreements; including all right-of-way, contracts, covenants and other binding requirements regarding perpetual maintenance, and
- All required calculations for design of the temporary and permanent BMPs.



RECEIVING WATERS:

Receiving waters, including surface water, wetlands, Public Waters, and stormwater ponds, are identified on the USGS 7.5 min quad map within one mile of the project boundary. Receiving waters that are impaired, the impairment, and WLA are listed as follows. All specific BMPs relative to construction activities listed in this permit for special and impaired waters have been incorporated into this plan. All specific BMPs listed in approved TMDLs and those BMPs listed for construction related waste load allocations have also been incorporated.

NAME OF WATER BODY	TYPE (ditch, pond, wetland, lake, etc.)	Appendix A Special Water?	Flows to Impaired Water Within 1 Mile?	USEPA Approved TMDL?
BASS	CREEK	NO	YES	FISH BIO
MUELLER MARSH	WETLAND	NO	YES	NA
SHINGLE	CREEK	NO	YES	DIS O2, FISH BIO

Impairments: CHLORIDE, FISH BIOASSESSMENTS, DISOLVED OXYGEN

IMPLEMENTATION SCHEDULE AND PHASING:

- Submit SWPPP Updates to Engineer. Submittal shall include any requested changes to the SWPPP, including but not limited to: Trained Personnel, Locations for Stockpiles, Concrete Washout, Sanitation Facilities, Types and Locations of Erosion & Sediment Control. Failure to submit updates shall be considered acceptance of the SWPPP as designed with no changes.
- Install perimeter sediment control, inlet protection, and construction exits.
- Remove bituminous and existing utilities.
- Install proposed utility improvements.
- Construct proposed road cross section.
- Install any remaining miscellaneous infrastructure.
- Add and maintain temporary BMPs as necessary during construction based on inspection reports.
- Ensure final stabilization measures are complete.
- Submit Notice of Termination (NOT) to MPCA within 30 days of final stabilization.

RESPONSIBLE PARTIES:

The Contractor and Owner must apply for coverage under the MPCA's General Storm Water Permit for Construction Activity as required by the National Pollutant Discharge Elimination System (NPDES) Phase II program. Coverage under the permit will begin automatically 7 calendar days after the electronic submittal date or after the postmarked date of a complete application. [Longer time frames apply to sites that disturb areas greater than 50 acres.]

The Contractor shall provide one or more trained Construction SWPPP Manager(s) knowledgeable and experienced in the application of erosion prevention and sediment control BMPs that will oversee the implementation of the SWPPP, and the installation, inspection and maintenance of the erosion prevention and sediment control BMPs. A Construction SWPPP Manager must be available for an on-site inspection within 72 hours upon request by the MPCA.

	COMPANY	CONTACT PERSON	PHONE
OWNER:	City of Brooklyn Park	Jesse Struve	763-493-8114
SWPPP DESIGNER:	Bolton & Menk, Inc.	Bob Bean	952.448.8838
CONTRACTOR:			
CONSTRUCTION SWPPP MANAGER:			
PARTY RESPONSIBLE FOR LONG TERM O&M:	City of Brooklyn Park	Steve Nauer	763-493-8009

The SWPPP Designer and Construction SWPPP Manager must have appropriate training. Documentation showing training commensurate with the job duties and responsibilities is required to be included in the SWPPP prior to any work beginning on the site. Training documentation for the SWPPP Designer is included on this sheet. The Contractor shall attach training documentation to this SWPPP for the Construction SWPPP Manager prior to the start of construction. This information shall be kept up to date until the project NOT is filed.

ADDITIONAL COMPENSATION

Payment for all work associated with Erosion and Sediment Control shall be as described in the Project Manual. Unless otherwise authorized by the Owner no additional payment shall be made for any work required to administer and maintain the site erosion and sediment control in compliance with the Minnesota Pollution Control Agency (MPCA) - General Storm Water Permit for Construction Activity (MN R100001) including but not limited to inspection, maintenance, and removal of BMPs or addition of BMPs to accommodate Contractor phasing.

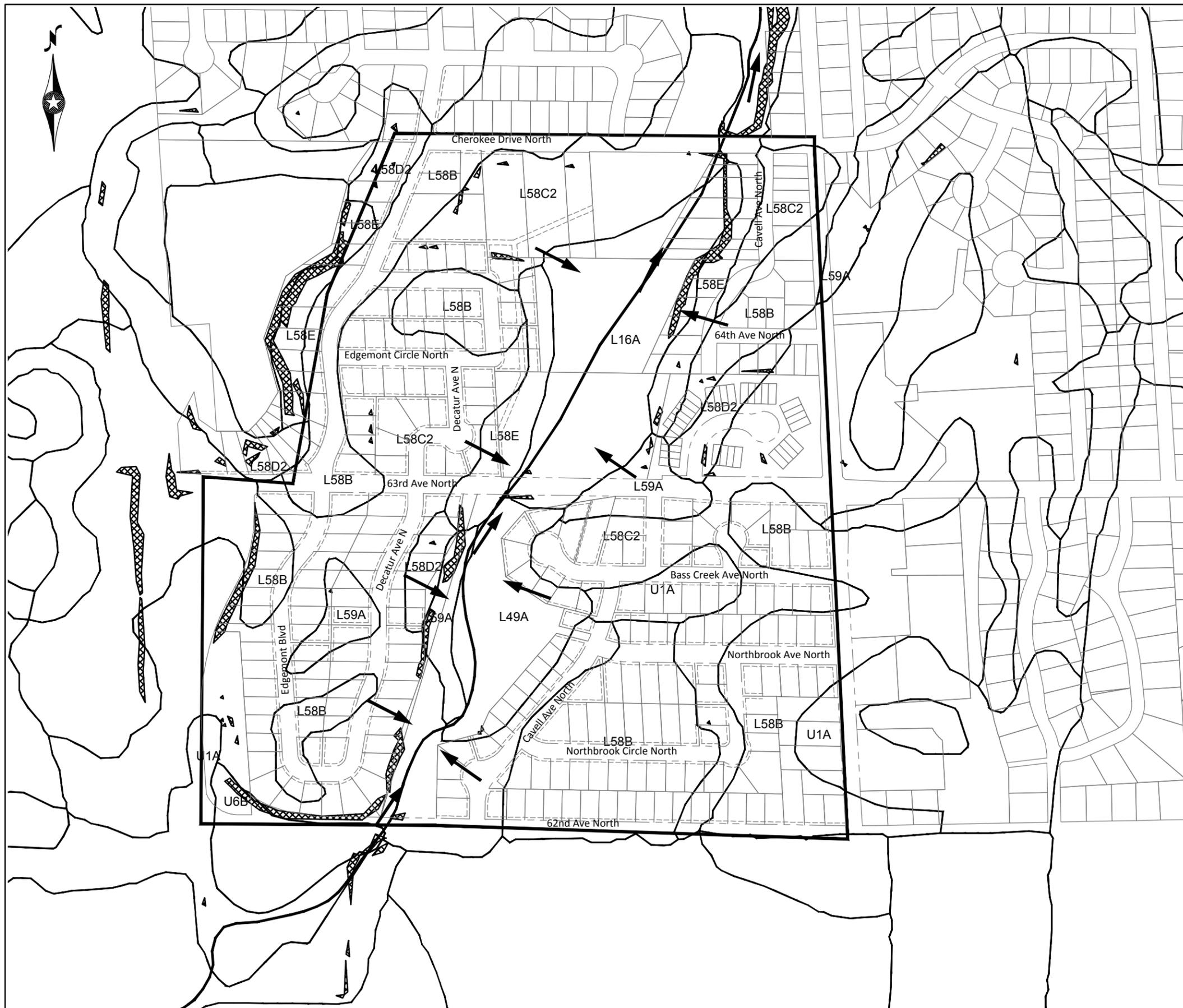
SPECIAL ENVIRONMENTAL CONSIDERATIONS:

1)	Was an environmental review required for this project or any part of a common plan of development or sale that includes all or any portion of this project?	NO
2)	Does any portion of the site have the potential to affect threatened or endangered species or their critical habitat?	NO
3)	Does any portion of this site discharge to a Calcareous fen.	NO
4)	Will any portion of the site potentially affect properties listed on the National Register of Historic Places or a known or discovered archeological site?	NO
5)	Have any Karst features have been identified in the project vicinity?	NO
6)	Is compliance with temporary or permanent stormwater management design requirements infeasible for this project?	NO
7)	Has the MN DNR promulgated "work in water restrictions" for any Public Water this site discharges to during fish spawning?	NO

GENERAL STORMWATER DISCHARGE REQUIREMENTS

All requirements listed in Part III of the Permit for the design of the permanent stormwater management system and discharge have been included in the preparation of this SWPPP. These include but are not limited to::

- The expected amount, frequency, intensity, and duration of precipitation.
- The nature of stormwater runoff and run-on at the site
- Peak flow rates and stormwater volumes to minimize erosion at outlets and downstream channel and stream bank erosion.
- The range of soil particle sizes expected to be present on the site.



LEGEND

- PROJECT BOUNDARY
- SOIL TYPE
- STEEP SLOPES (>33.3%)
- BASS CREEK
- DRAINAGE DIRECTION

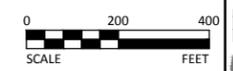
SOIL TYPE SUMMARY

Map Unit Symbol	Soil Name	Hyd. Soil Group	Erodibility
MUSYM	MUNAME	HYDGRP	MUHELCL
L16A	Muskego, Blue Earth and Houghton soils, 0 to 1 percent slopes	B/D	NHEL
L49A	Klossner soils, 0 to 1 percent slopes	B/D	NHEL
L58B	Koronis-Kingsly complex, 2 to 6 percent slopes	A	NHEL
L58C2	Koronis-Kingsly complex, 6 to 12 percent slopes	A	PHEL
L58D2	Koronis-Kingsly complex, 12 to 18 percent slopes	A	HEL
L58E	Koronis-Kingsly complex, 18 to 25 percent slopes	A	HEL
L59A	Forestcity-Lundlake, depressional, complex, 0 to 3 percent slopes	B/D	NHEL
U1A	Urban Land - Udorthents, wet substratum, complex, 0 to 2 percent slopes	-	NHEL
U6B	Urban Land - Udorthents (cut and fill land) complex, 0 to 6 percent slopes	-	NHEL

NHEL - Not Highly Erodible Land
 PHEL - Potentially Highly Erodible Land
 HEL - Highly Erodible Land

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

DESCRIPTION	SHEET NO.
SITE MAP	5.01
DIRECTION OF FLOW	5.02
FINAL STABILIZATION	5.04-5.17
SOILS	5.02
DRAINAGE STRUCTURES	1.07
DRAINAGE TABULATION	3.20
STORM SEWER PLAN/PROFILE SHEETS	3.20-3.30
EROSION & SEDIMENT CONTROL DETAILS	1.08



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Joshua Eckstein
 JOSHUA ECKSTEIN
 LIC. NO. 48224 DATE 01/15/2016

DESIGNED MLP
 DRAWN MLP
 CHECKED JZE



REV.	BY	DATE	CITY OF BROOKLYN PARK, MINNESOTA	SHEET
			2016 STREET RECONSTRUCTION PROJECT	5.02
			STORMWATER POLLUTION PREVENTION PLAN	OF
			SITE AND SOILS MAP	108

Information contained in this SWPPP narrative sheet summarizes requirements of the GENERAL PERMIT AUTHORIZATION TO DISCHARGE STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM PROGRAM - Permit No: MN R100001 as they apply to this project. All provisions of the permit including those not specifically cited herein shall apply to this project. The Contractor is responsible to be familiar with and comply with all conditions of the permit. The full text of the permit is available at: <http://www.pca.state.mn.us/index.php/water/water-types-and-programs/stormwater/construction-stormwater/mpca-to-re-issue-construction-stormwater-general-permit.html>.

SWPPP AMENDMENTS

Permittee must amend SWPPP as necessary to include additional requirements to correct problems identified or address the following situations.

1. There is a change in design, construction, operation, maintenance, weather or seasonal conditions.
2. Inspections or investigations by site owner or operators, USEPA or MPCA officials determine the SWPPP is not minimizing discharge of pollutants to surface waters or underground waters or discharges are causing water quality standard exceedances.
3. The SWPPP is not achieving the objectives of minimizing pollutants in stormwater discharges associated with construction activity, or the SWPPP is not consistent with the terms and conditions of the permit.
4. The MPCA determines that the project's stormwater discharges may cause, have reasonable potential to cause, or contribute to non-attainment of any applicable water quality standard, or the SWPPP does not incorporate the applicable requirements of the permit.

EROSION PREVENTION PRACTICES:

The location of areas not to be disturbed must be delineated on the project before site work begins.

Disturbance on steep slopes (>33.3%) shall be minimized. Where required, techniques such as phasing and stabilizing practices designed for steep slopes shall be used.

All exposed soils must be stabilized as soon as possible but in no case later than 7 days after the construction activity has temporarily or permanently ceased.

For public waters that have been promulgated "work in water restrictions" during fish spawning time frames, all exposed soil areas that are within 200 feet of the water's edge, and drain to these waters must complete stabilization within 24-hours during the time period.

Stormwater conveyance channels shall be routed around unstabilized areas. Erosion controls and velocity dissipation devices shall be used at outlets within and along the length of any constructed conveyance channel.

The normal wetted perimeter of all ditches or swales, including storm water management pond slopes, that drain waters from the site must be stabilized within 200' of any property edge or discharge point, including storm sewer inlets, within 24 hours of connection.

Stabilization of the remaining portions of any temporary or permanent ditches or swales with 7 calendar days after connecting to a surface water or property edge and construction in that portion of the ditch has temporary or permanently ceased.

Temporary or permanent ditches or swales used as sediment containment during construction do not need to be stabilized during temporary period of use and shall be stabilized within 24 hours after no longer used as sediment containment.

Mulch, hydromulch, tackifier, or similar practice shall not be used in any portion of a temporary or permanent drainage ditch. Refer to erosion and sediment control plan for temporary and permanent stabilization measures for ditches and swales.

Stormwater discharges shall be directed to vegetated areas where feasible. Velocity dissipation devices shall be used at discharge point.

Phased construction will be used to extent practical or as indicated in the plans to minimize exposed soils.

Rapid stabilization shall be of type and quantity indicated in the project specifications. Additional rapid stabilization may be necessary to minimize erosion throughout the duration of the project. Type and quantity shall be determined by the engineer or inspector prior to installation. In extreme cases, the contractor shall use any available rapid stabilization to immediately mitigate erosion, then further remedy the situation with approval by owner or engineer.

SEDIMENT CONTROL PRACTICES:

Practices must be established on all down gradient perimeters and be located up gradient of any buffer zones. Perimeter controls must be in place before up gradient land-disturbing activities begin and shall remain in place until final stabilization.

All sediment controls practices shall be re-installed if they have been adjusted or removed to accommodate short-term activities and replaced immediately after the short term activity has ceased. Short term activities shall be performed as quickly as possible. Sediment control practices shall be re-installed even before the next precipitation event if the activity is not complete.

All storm drains must be protected by appropriate BMPs during construction until all sources to the inlet have been stabilized. Inlet protection may be removed for specific safety concerns identified by the Permittee or jurisdictional authority. The removal shall be documented in the SWPPP and retained on site. Temporary stockpiles must have silt fence or other effective sediment controls and shall not be placed in surface waters or

natural buffers.

Vehicle tracking BMPs shall be installed to minimize track out of sediment from the construction site. Method shall be approved by engineer prior to commencement of construction activities. Street sweeping shall be used if vehicle tracking BMPs are not adequate to prevent sediment from being tracked onto the street.

Soil compaction shall be minimized and topsoil shall be preserved, unless infeasible or if construction activities dictate soil compaction or topsoil stripping.

A 100 foot natural buffer, or redundant BMPs (where a buffer is infeasible) must be maintained when a surface water is located within 100 feet of disturbance activities and site runoff flows to the surface water.

If polymers, flocculants, or other sedimentation treatment chemicals are used on site, 1) conventional erosion and sediment controls shall be sowed prior to chemical placement, 2) chemicals shall be chosen based on soil types, and expected turbidity, pH, and flow rate of stormwater flowing into the treatment system, and 3) chemicals shall be used with accepted engineering practices and dosing specifications.

TEMPORARY SEDIMENTATION BASINS:

A temporary sedimentation basin shall be constructed and made operational prior to disturbance of 5 or more acres draining to a common location.

Temporary sedimentation basins are required prior to runoff leaving the construction site or entering surface waters when 5 or more acres of disturbed soils drain to a common location. The basin must provide 3,600 cubic feet of storage below the outlet per acre drained. If hydraulic calculations are available, the temporary sedimentation basin must provide a storage volume equivalent to the 2-year, 24-hour storm, but in no case less than 1800 cubic feet per acre drained. The temporary sedimentation basin must be constructed and made operational concurrent with the start of soil disturbance up gradient of the pond. The temporary sedimentation basin shall be designed to prevent short circuiting. The outfall shall be designed to remove floatable debris, allow for complete drawdown of the pond for maintenance activities, and have energy dissipation. The emergency spillway shall be stabilized.

Temporary sedimentation basins shall be situated outside of surface waters and any required buffer zone, and must be designed to avoid draining wetlands, unless the impact is in compliance with the requirements of this permit.

Excessive sediment-laden water that is not properly filtered will not be permitted to discharge from site.

DEWATERING AND BASIN DRAINING

Turbid or sediment-laden waters related to dewatering or basin draining shall be discharged to a temporary or permanent sedimentation basin on the project site unless infeasible. The temporary or permanent basin may discharge to surface waters if the basin water has been visually checked to ensure adequate treatment has been obtained in the basin and that the nuisance conditions will not result from the discharge. Discharge points shall be adequately protected from erosion and proper velocity dissipation provided.

All water from dewatering or basin-draining activities must be discharged in a manner that does not cause nuisance conditions, erosion in the receiving channels or on down slope properties, or inundation in wetlands causing significant adverse impacts to the wetland.

If filters with backwash waters are used, the backwash water shall be hauled away for disposal, returned to the beginning of the treatment process, or incorporated into site in a manner that does not cause erosion. Backwash water may be discharged to sanitary sewer if permission is granted by the sanitary sewer authority.

POLLUTION PREVENTION:

Building products that have the potential to leach pollutants must be under cover to prevent discharge or protected by an effective means designed to minimize contact with stormwater.

Pesticides, herbicides, insecticides, fertilizers, treatment chemicals, and landscape materials must be under cover.

Hazardous materials and toxic waste must be properly stored in sealed containers to prevent spills, leaks or other discharge. Restricted access storage areas must be provided to prevent vandalism.

Solid waste must be stored, collected and disposed of in compliance with Minn. R. CH 7035.

Portable toilets must be positioned so that they are secure and will not be tipped or knocked over. Sanitary waste must be disposed of properly in accordance with Minn. R. CH 7041.

Discharge of spilled or leaked chemicals, including fuel, from any area where chemicals or fuel will be loaded or unloaded shall be prevented using drip pans or absorbents. Supplies shall be available at all times to clean up discharged materials and that an appropriate disposal method must be available for recovered spilled materials.

Exterior vehicle or equipment washing on the project site shall be limited to a defined area of the site. Runoff from the washing area shall be contained in a sediment basin or other similarly effective controls and waste from the washing activity must be properly disposed of. No engine degreasing is allowed on site.

Effective containment for all liquid and solid wastes generated by concrete and other washout operations related to construction activity shall be effectively contained. Liquid and solid washout waste shall not contact the ground, and containment must be designed so that it does not result in runoff from the washout operations or areas. A sign must be installed adjacent to each washout facility that requires site personnel to utilize the proper facilities for disposal of concrete and other washout wastes.

INFESTED WATERS:

MN DNR permits are not valid for work in waters that are designated as infested waters unless accompanied by and Infested Waters Permit or written notification from MN DNR that an Infested Waters Permit is not required. There is no exception for pre-existing permits. If a MN DNR Permit has been issued for the project and the water is later designated as infested, the Contractor shall halt all work covered by the MN DNR Permit until an Infested Water Permit or written notification that in Infested Water is not required is obtained.

INSPECTION & MAINTENANCE:

A trained person shall routinely inspect the entire construction site at least once every 7 days during active construction and within 24-hours after a rainfall event greater than 0.5 inches in 24 hours. Following an inspection that occurs within 24-hours after a rainfall event, the next inspection must be conducted within 7 days.

All inspections and maintenance conducted during construction must be recorded within 24 hours in writing and records must be retained with the SWPPP. Inspection report forms are available in the Project Specifications. Inspection report forms other than those provided shall be approved by the engineer.

Where parts of the project site have permanent cover, but work remains on other parts of the site, inspections may be reduced on these areas to once per month.

Where the site has permanent cover on all exposed areas and no construction activity is occurring anywhere on site, the site must be inspected during non-frozen conditions at least once per month for 12 months. Following the 12th month of permanent cover and no construction activity, inspections shall be terminated until construction activity resumes or notification from MPCA has been issued that erosion has been detected at the site.

During frozen ground conditions, inspections may be suspended and shall resume within 24 hours after runoff occurs or 24 hours prior to resuming construction activity, whichever is first.

Inspection and maintenance shall resume until another Permittee has obtained coverage under this Permit or the project has undergone Final Stabilization, and a NOT has been submitted.

All erosion prevention and sediment control BMPs shall be inspected to ensure integrity and effectiveness during all routine and post-rainfall inspections. All non-functioning BMPs must be repaired, replaced, or supplemented with functional BMPs by the end of the next business day after discovery, or as soon as field conditions allow access.

All perimeter control devices must be repaired, replaced, or supplemented when they become non-functional or the sediment reaches one-half (1/2) of the height of the device. These repairs must be made by the end of the next business day after discovery, or as soon as field conditions allow.

Temporary and permanent sediment basins must be drained and the sediment removed when the depth of sediment collected in the basin reaches one-half (1/2) the storage volume. Drainage and sediment removal must be completed within 72 hours of discovery, or as soon as field conditions allow.

Surface waters, including drainage ditches and conveyance systems, must be inspected for erosion and sediment deposition during each inspection. All deltas and sediment deposited in drainage ways, catch basins, and other drainage systems shall be removed. The removal and stabilization must take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints. The Permittee is responsible for obtaining all applicable permits prior to conducting any work in surface waters.

Construction site vehicle exit locations must be inspected for evidence of off-site sediment tracking onto paved surfaces. Tracked sediment must be removed from all paved surfaces both on and off site within 24-hours of discovery, or if applicable, within a shorter time to comply with the permit.

Streets and other areas adjacent to the project must be inspected for evidence of off-site accumulations of sediment. If sediment is present, it must be removed in a manner and at a sufficient frequency to minimize off-site impacts.

All infiltration areas must be inspected to ensure that no sediment from ongoing construction activity is reaching the infiltration area and that equipment is not being driven across the infiltration area.

FINAL STABILIZATION:

Final Stabilization is not complete until all of the following requirements have been met:

1. All soil disturbing activities at the site have been completed and all soils are stabilized by a uniform perennial vegetative cover with a density of 70% of its expected final growth density over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions.
2. Permanent stormwater management system is constructed, meets all requirements of the Permit, and is operating as designed. Temporary or permanent sedimentation basins that are to be used as permanent water quality management basins have been cleaned of any accumulated sediment. All sediment has been removed from conveyance systems, and ditches are stabilized with permanent cover.
3. All temporary synthetic and structural erosion prevention and sediment control BMPs have been removed. BMPs designed to decompose on site may be left in place.
4. For residential construction only, individual lots are considered finally stabilized if the structure(s) are finished, temporary erosion protection and down gradient perimeter control has been completed and the residence has been sold to the homeowner. Also, the "Homeowner Fact Sheet" has been provided to the homeowner.



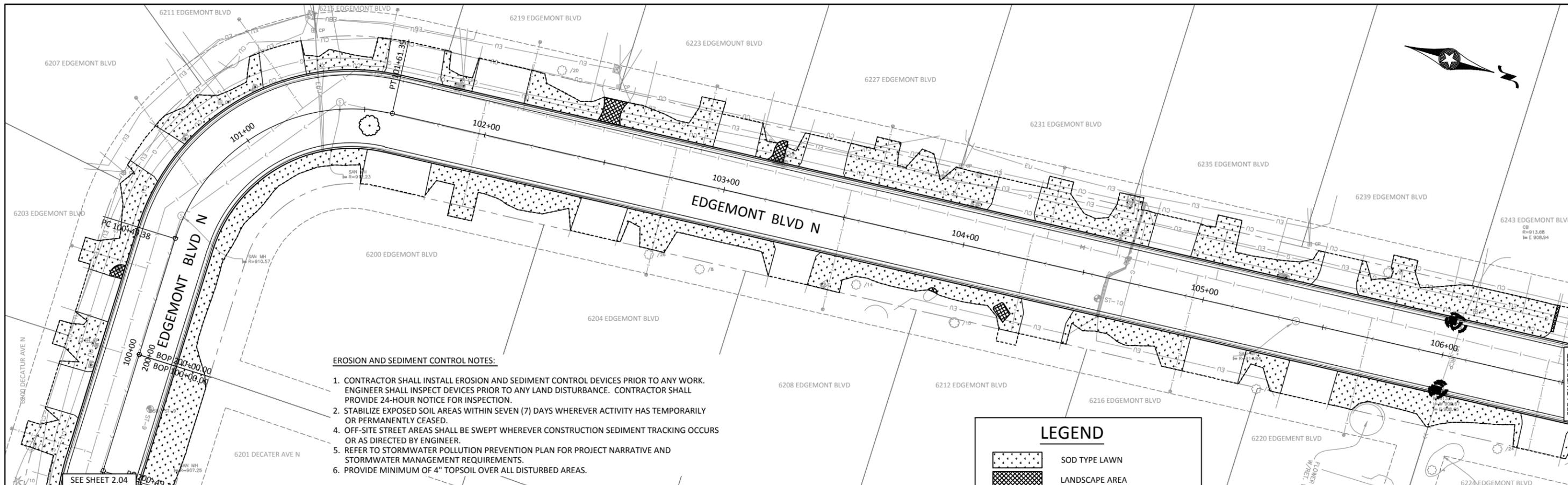
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CITY OF BROOKLYN PARK, MINNESOTA
2016 STREET RECONSTRUCTION PROJECT
STORMWATER POLLUTION PREVENTION PLAN
NARRATIVE

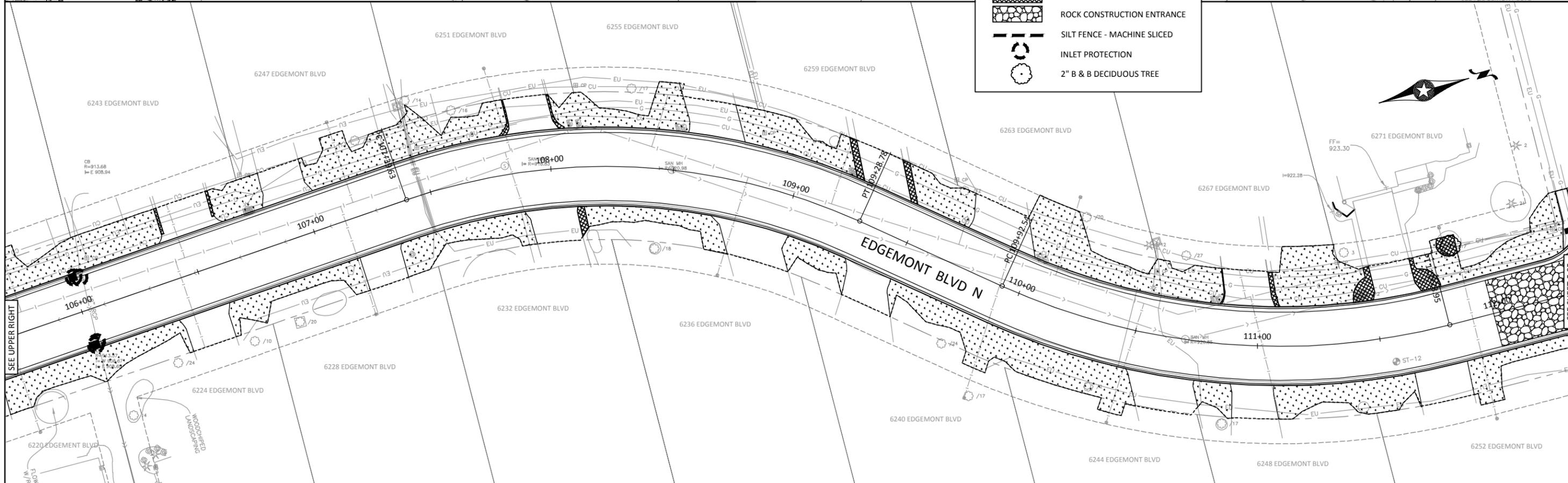


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LEGEND

-  SOD TYPE LAWN
-  LANDSCAPE AREA
-  ROCK CONSTRUCTION ENTRANCE
-  SILT FENCE - MACHINE SLICED
-  INLET PROTECTION
-  2" B & B DECIDUOUS TREE



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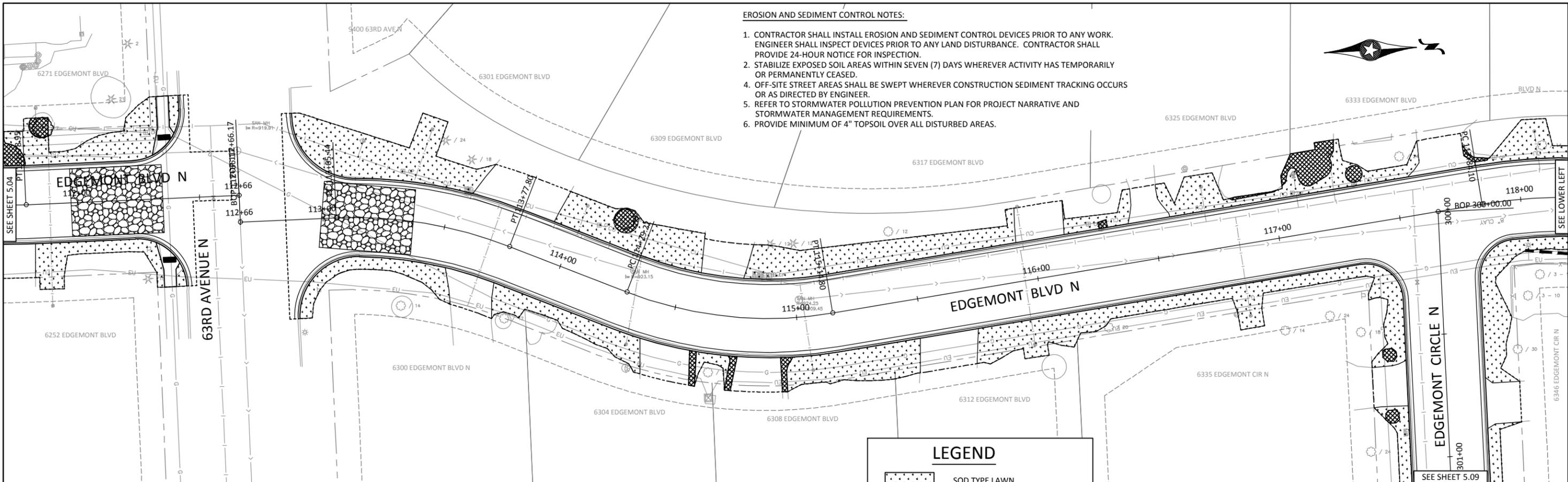
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CITY OF BROOKLYN PARK, MINNESOTA
2016 STREET RECONSTRUCTION PROJECT
EROSION CONTROL & TURF ESTABLISHMENT PLAN

SHEET 5.04 OF 108

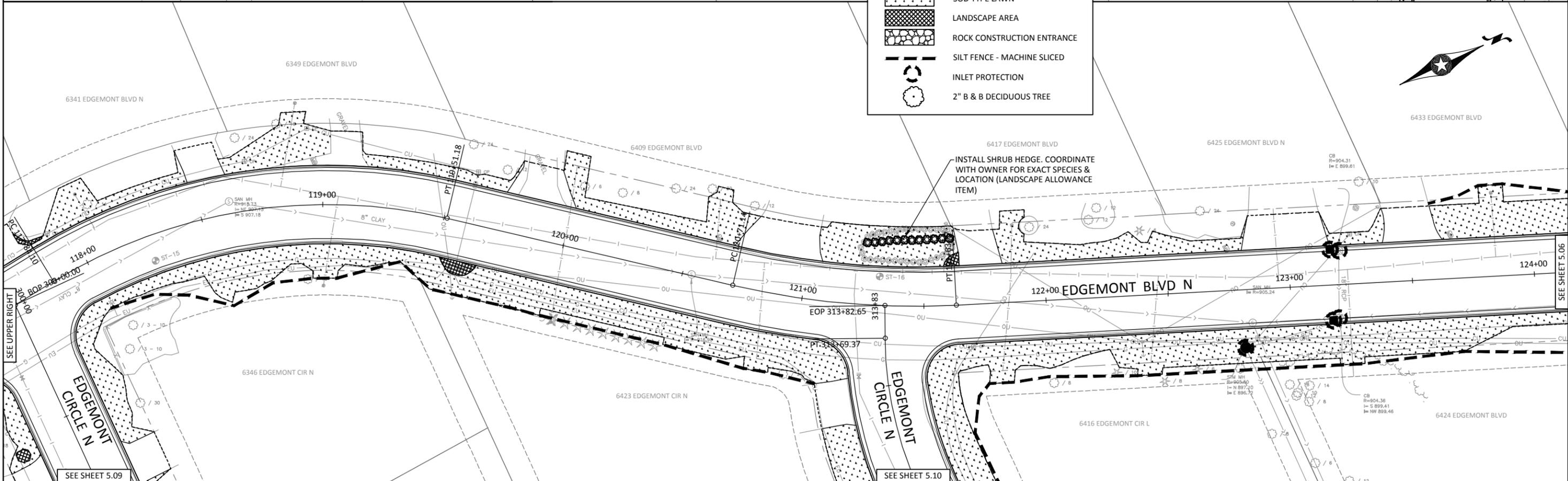
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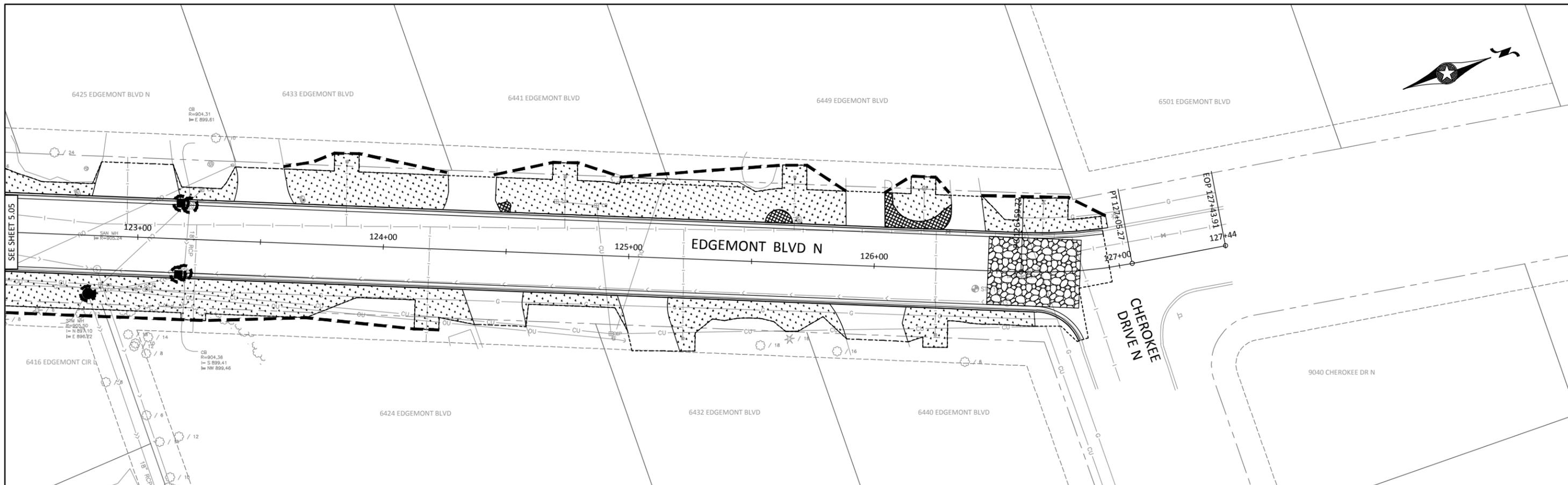


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<p>0 20 40 HORZ. SCALE FEET</p> <p>Brooklyn Park Unique. United. Undiscovered.</p> <p><small>© Bolton & Menk, Inc. 2015. All Rights Reserved H:\BRPK\C13110831\CAD\C30\Sheets\110831_ERD.dwg 1/18/16 6:42 pm</small></p>	<p>DESIGNED: SAE DRAWN: DDS CHECKED: JZE</p>	<p>HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.</p> <p><i>Joshua Eckstein</i> JOSHUA ECKSTEIN LIC. NO. 48224 DATE 01/15/2016</p>	<p>BOLTON & MENK, INC. Consulting Engineers & Surveyors MANKATO, MN FAIRMONT, MN SLEEPY EYE, MN BURNSVILLE, MN WILLMAR, MN CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV.</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REV.	BY	DATE										<p>CITY OF BROOKLYN PARK, MINNESOTA 2016 STREET RECONSTRUCTION PROJECT EROSION CONTROL & TURF ESTABLISHMENT PLAN</p>	<p>SHEET 5.05 OF 108</p>
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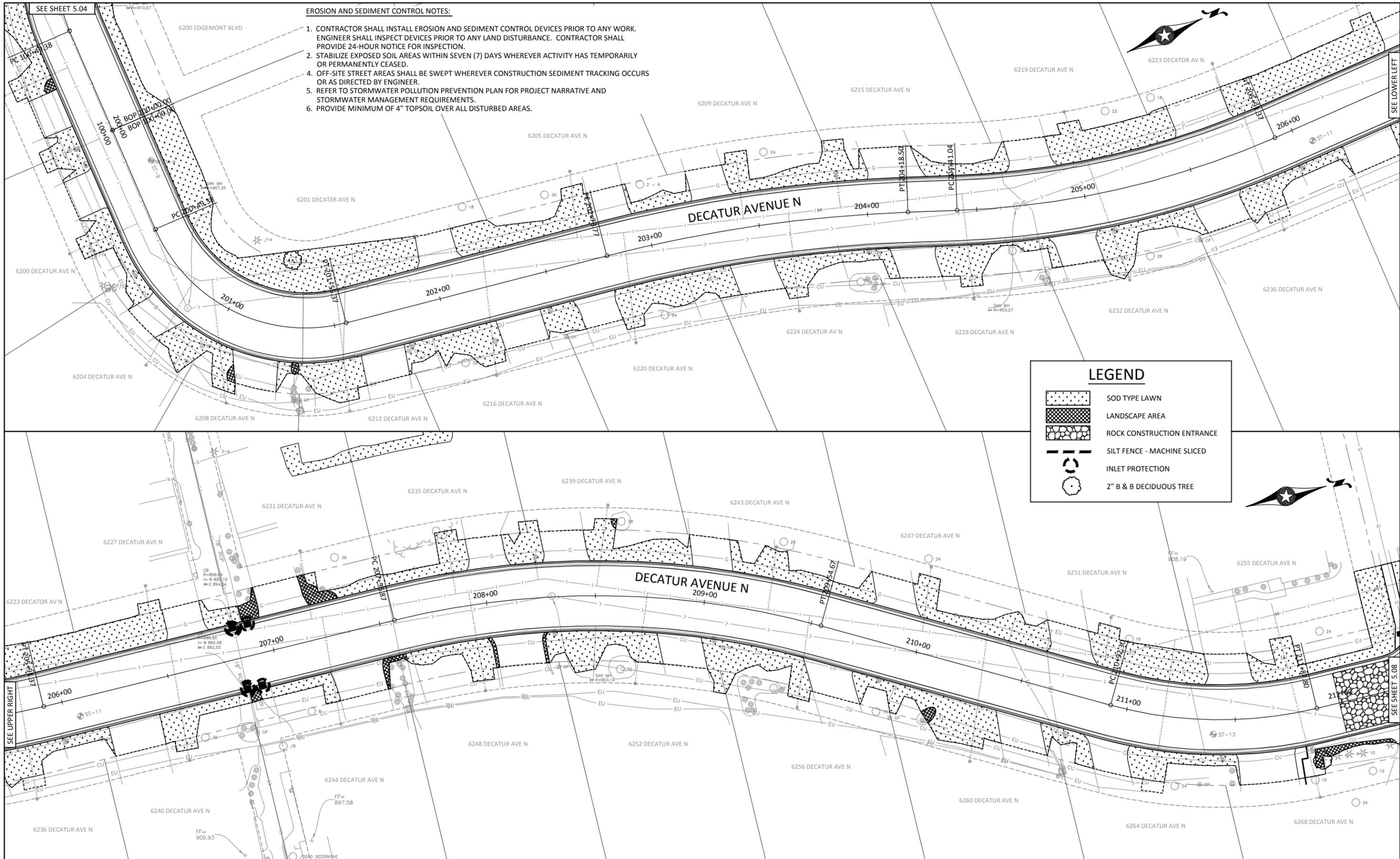


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 2016 STREET RECONSTRUCTION PROJECT
 EROSION CONTROL & TURF ESTABLISHMENT PLAN

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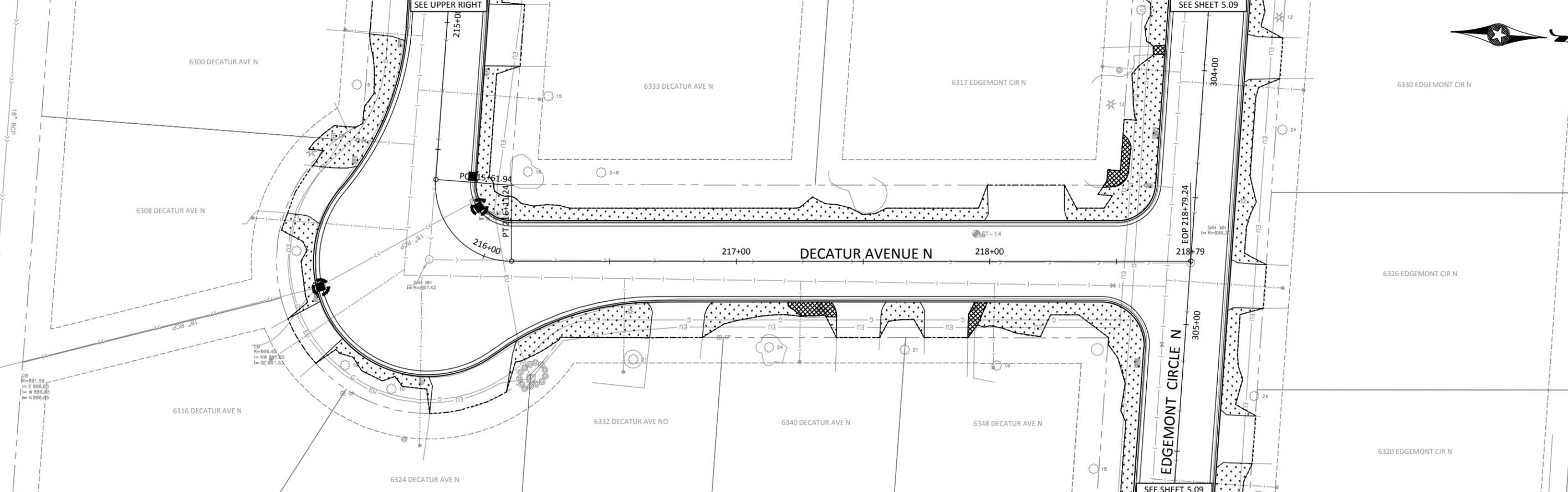
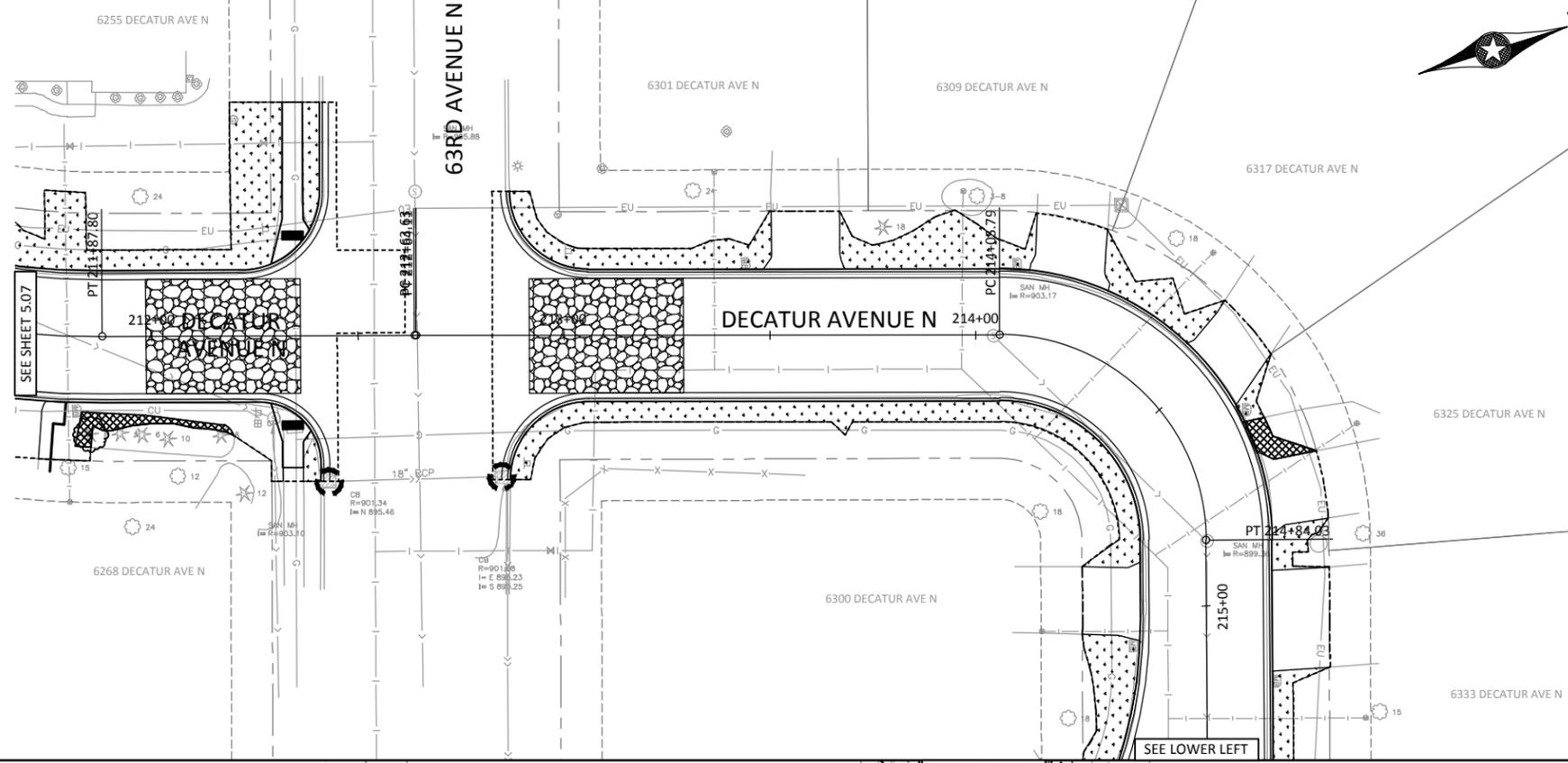
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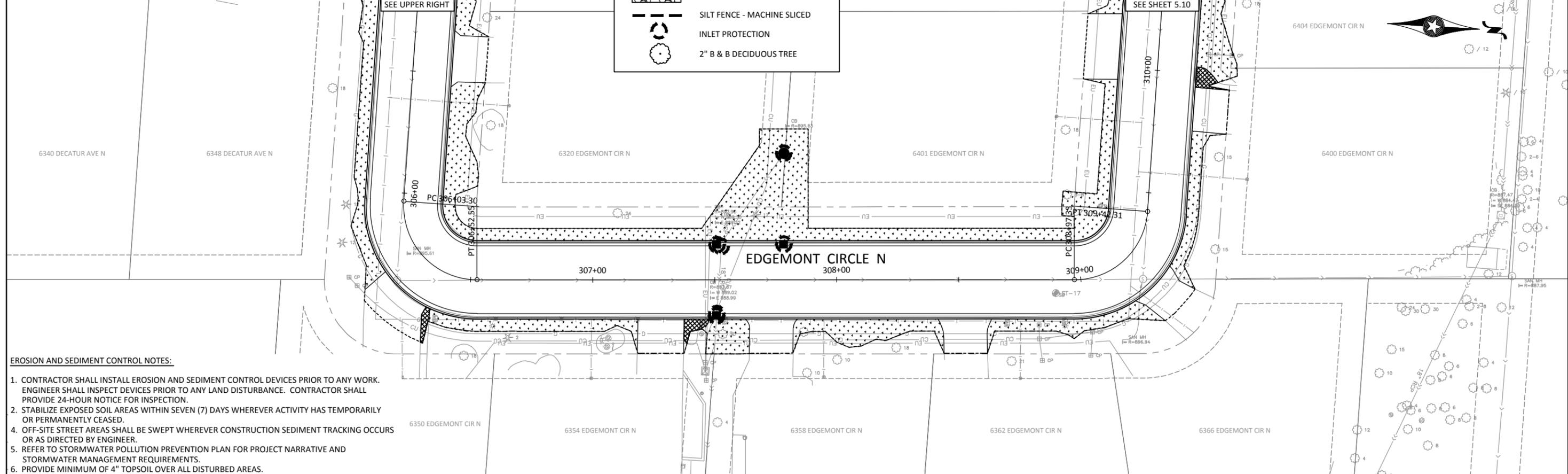
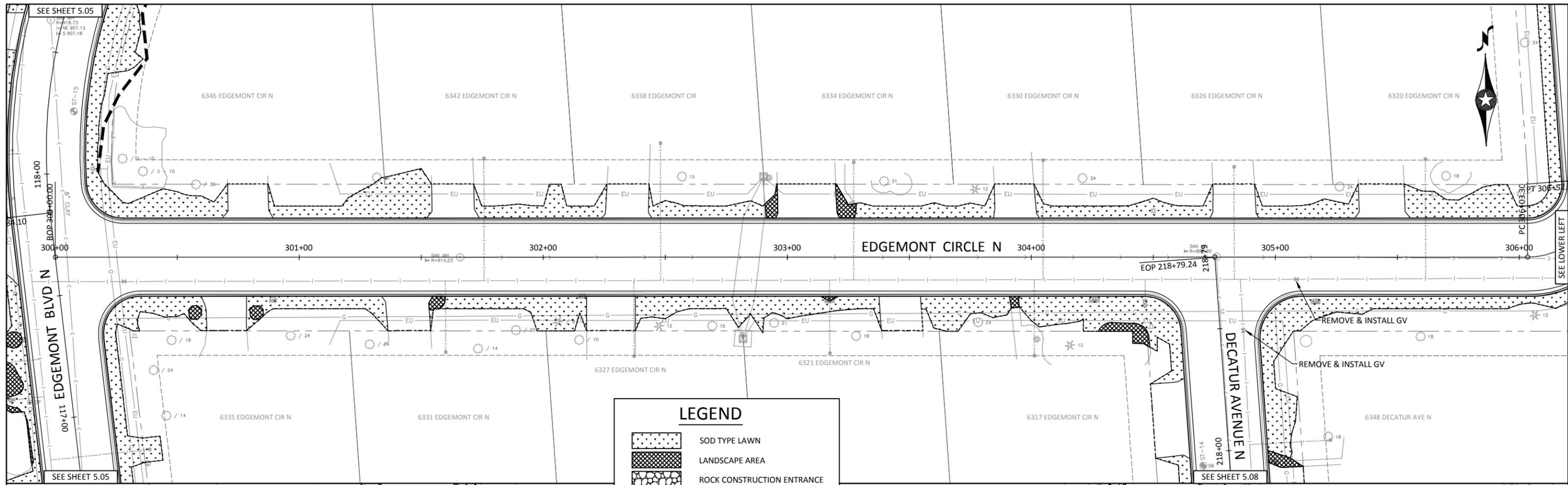
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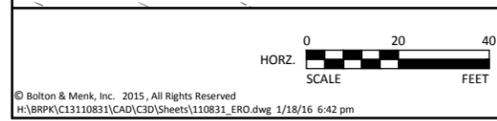
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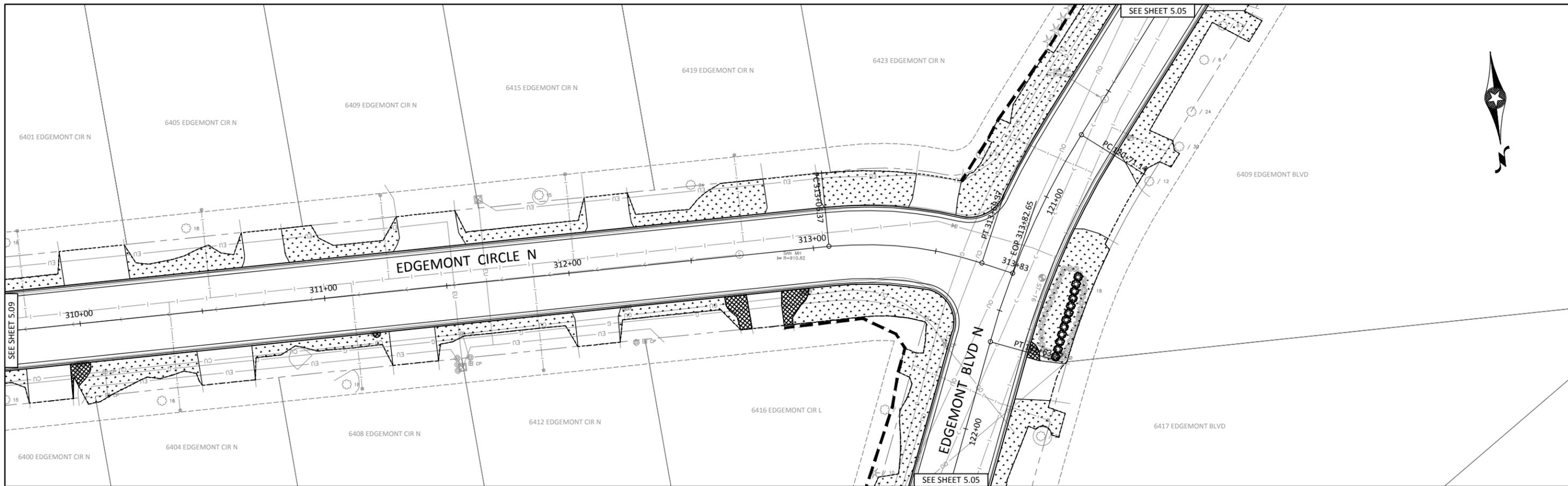
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 AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND

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CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 EROSION CONTROL & TURF ESTABLISHMENT PLAN



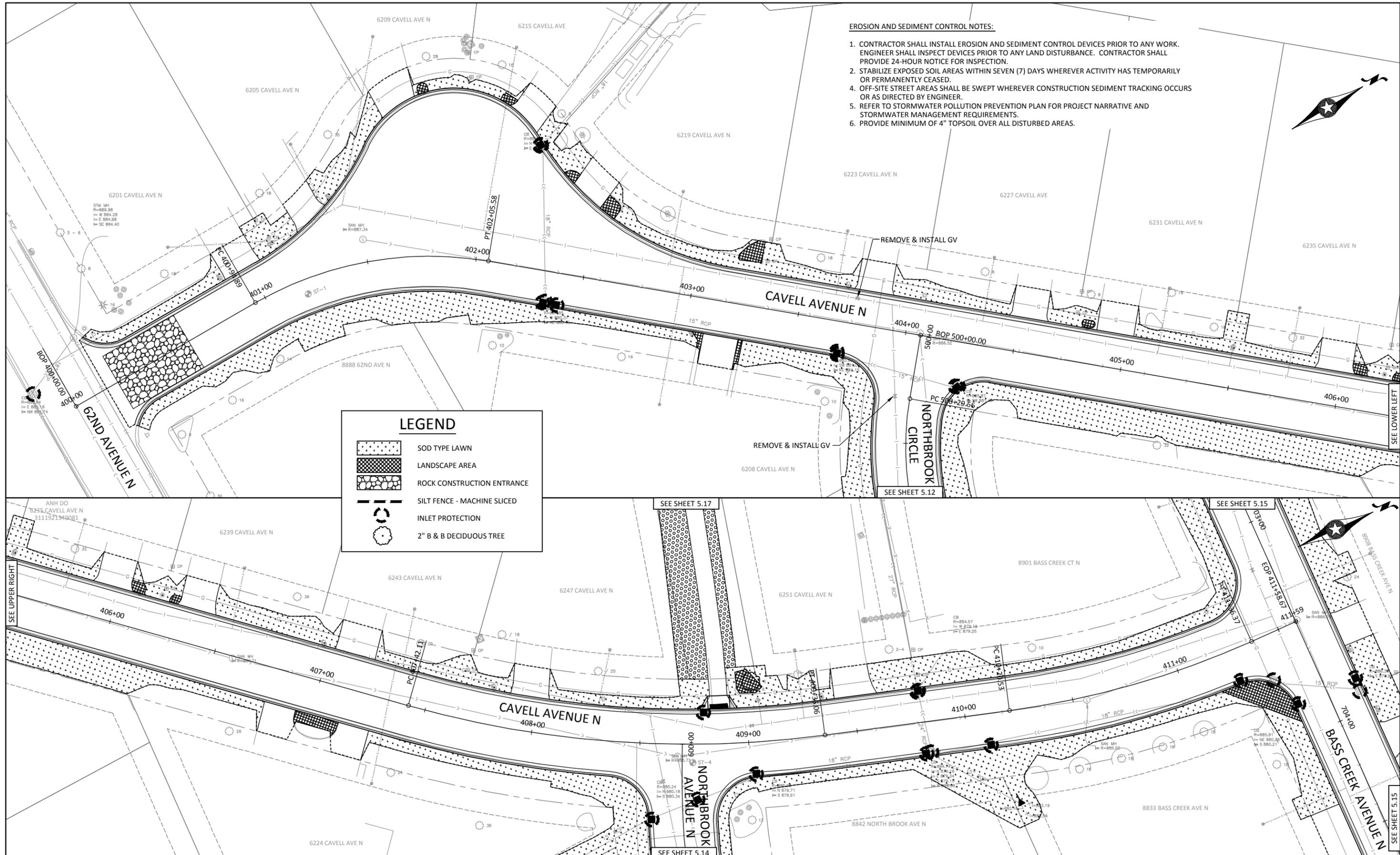
LEGEND

	SOD TYPE LAWN
	LANDSCAPE AREA
	ROCK CONSTRUCTION ENTRANCE
	SILT FENCE - MACHINE SLICED
	INLET PROTECTION
	2" B & B DECIDUOUS TREE

- EROSION AND SEDIMENT CONTROL NOTES:**
1. CONTRACTOR SHALL INSTALL EROSION AND SEDIMENT CONTROL DEVICES PRIOR TO ANY WORK. ENGINEER SHALL INSPECT DEVICES PRIOR TO ANY LAND DISTURBANCE. CONTRACTOR SHALL PROVIDE 24-HOUR NOTICE FOR INSPECTION.
 2. STABILIZE EXPOSED SOIL AREAS WITHIN SEVEN (7) DAYS WHEREVER ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED.
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 5. REFER TO STORMWATER POLLUTION PREVENTION PLAN FOR PROJECT NARRATIVE AND STORMWATER MANAGEMENT REQUIREMENTS.
 6. PROVIDE MINIMUM OF 4" TOPSOIL OVER ALL DISTURBED AREAS.

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- SOD TYPE LAWN
- LANDSCAPE AREA
- ROCK CONSTRUCTION ENTRANCE
- SILT FENCE - MACHINE SLICED
- INLET PROTECTION
- 2" B & B DECIDUOUS TREE

SEE UPPER RIGHT

SEE LOWER LEFT

SEE SHEET 5.17

SEE SHEET 5.15

SEE SHEET 5.14

SEE SHEET 5.15



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Joshua Eckstein
 JOSHUA ECKSTEIN
 LIC. NO. 48224 DATE 01/15/2016

DESIGNED
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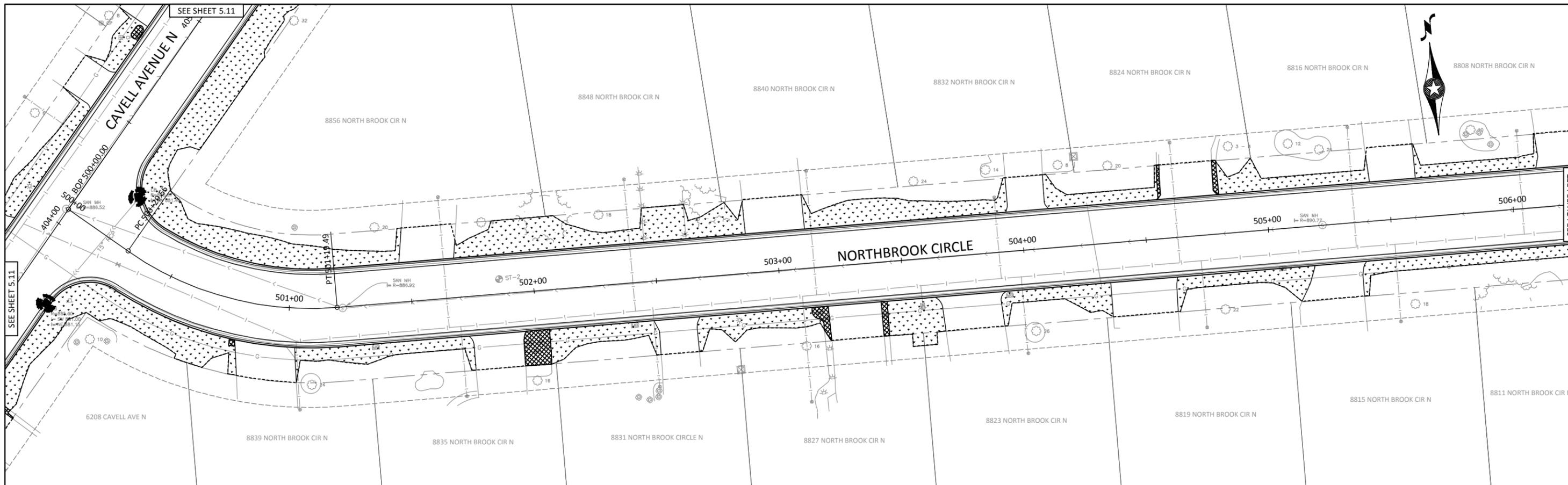
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CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 EROSION CONTROL & TURF ESTABLISHMENT PLAN

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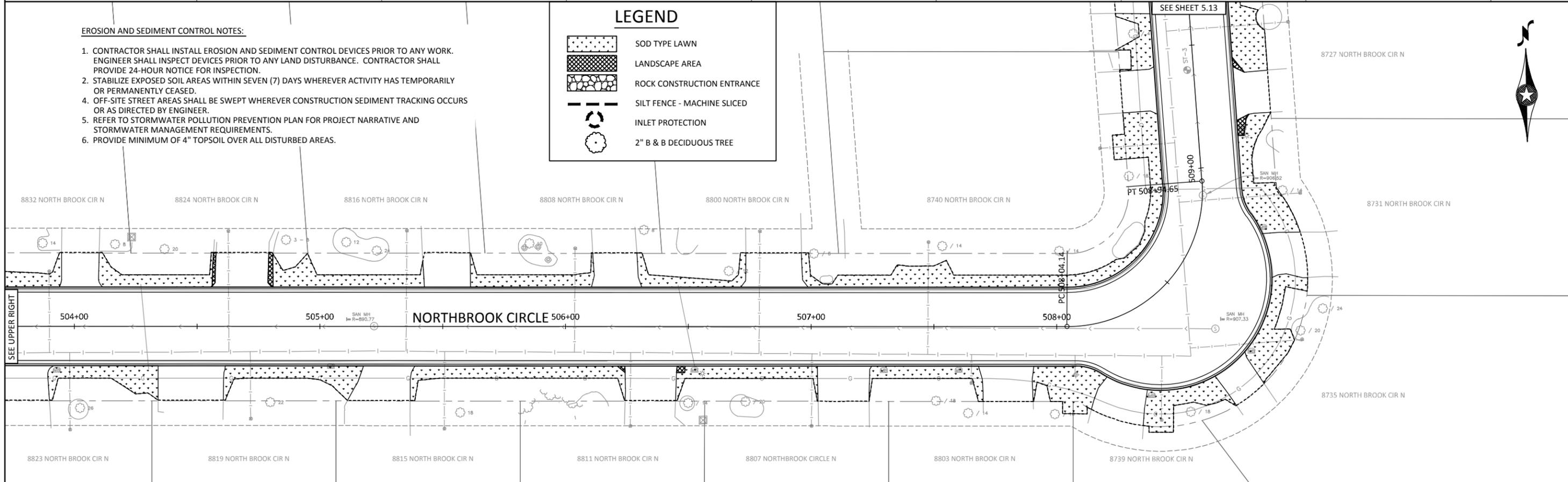


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- LANDSCAPE AREA
- ROCK CONSTRUCTION ENTRANCE
- SILT FENCE - MACHINE SLICED
- INLET PROTECTION
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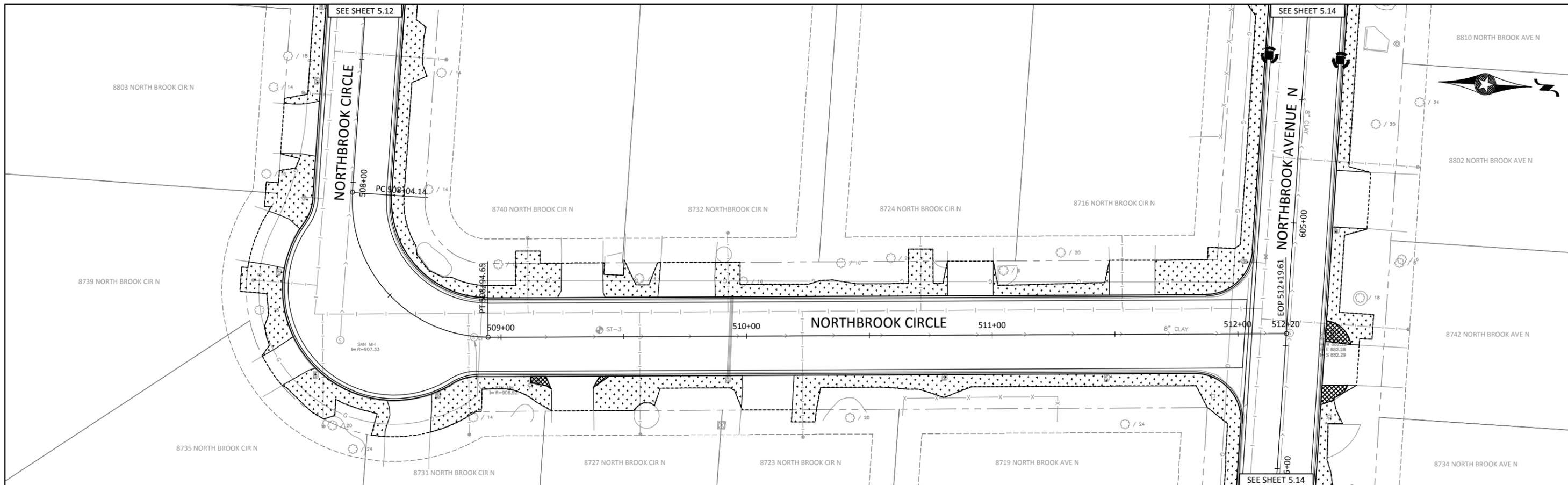
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CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 EROSION CONTROL & TURF ESTABLISHMENT PLAN

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- LANDSCAPE AREA
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- SILT FENCE - MACHINE SLICED
- INLET PROTECTION
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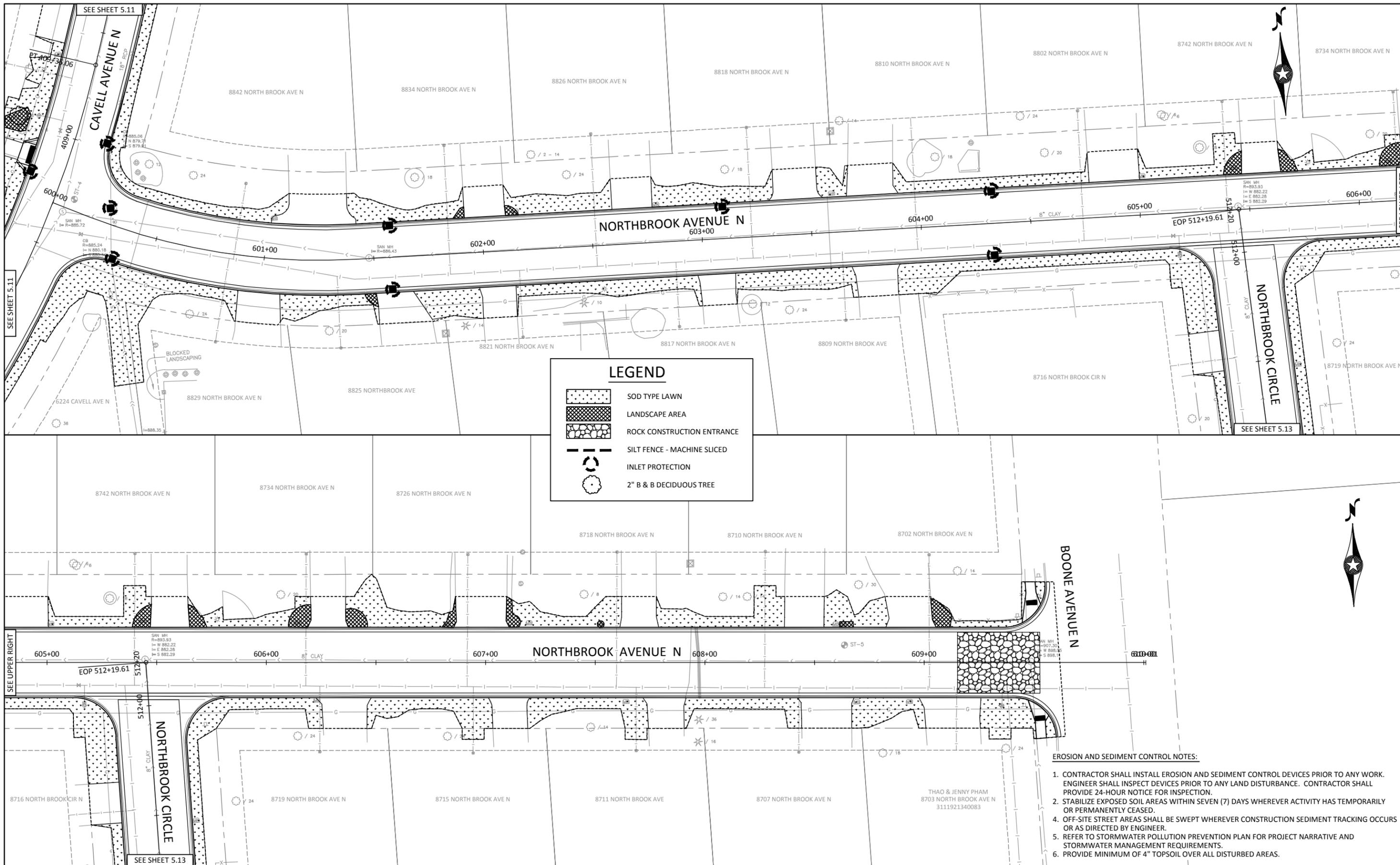
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CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
 EROSION CONTROL & TURF ESTABLISHMENT PLAN



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- LANDSCAPE AREA
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THAO & JENNY PHAM
8703 NORTH BROOK AVE N
3111921340083

0 20 40
HORZ. SCALE FEET

Brooklyn Park
Unique. United. Undiscovered.

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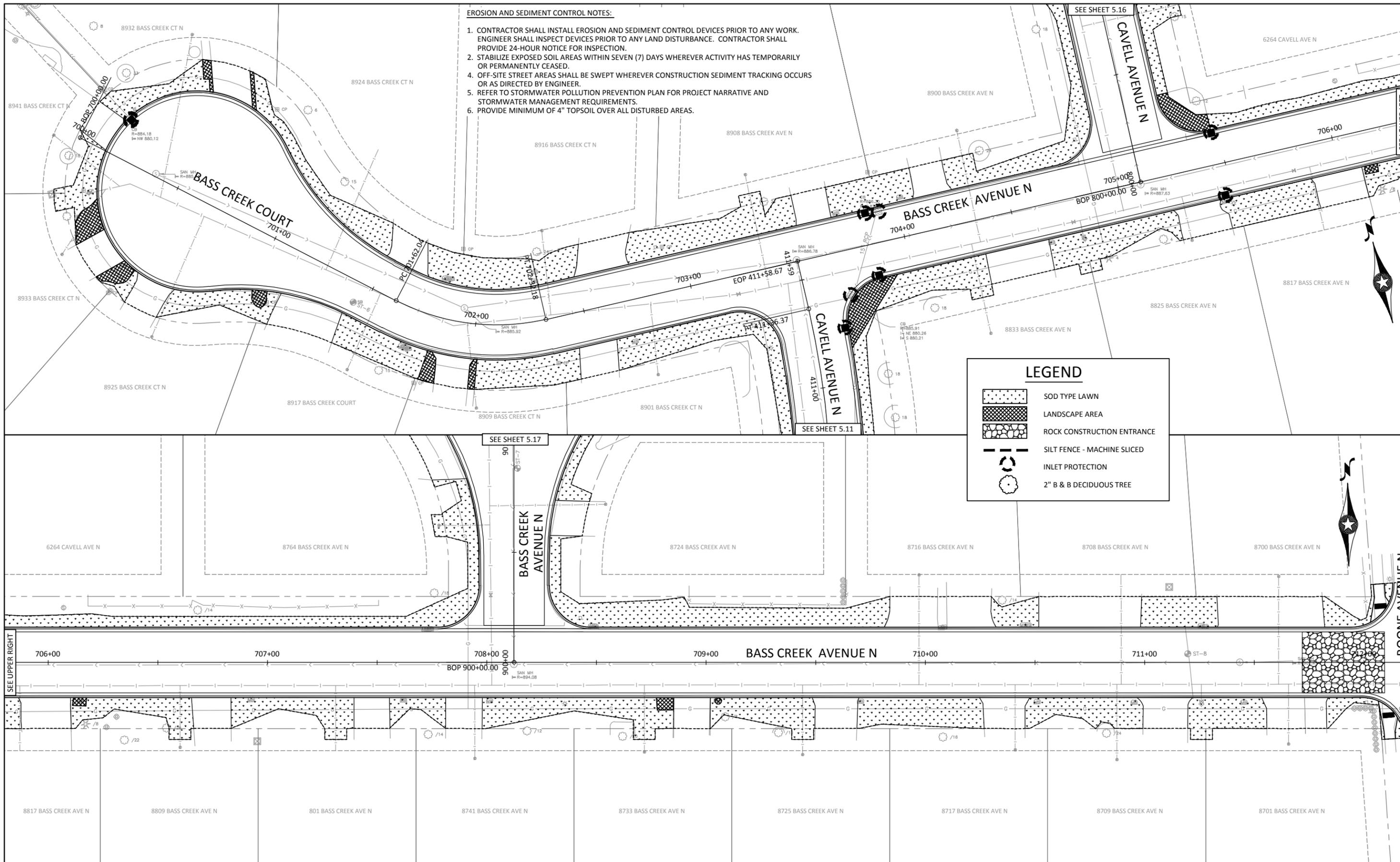
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2016 STREET RECONSTRUCTION PROJECT
EROSION CONTROL & TURF ESTABLISHMENT PLAN

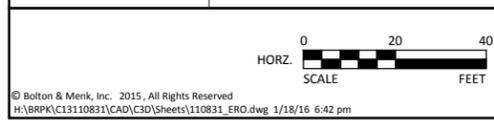
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LEGEND

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- LANDSCAPE AREA
- ROCK CONSTRUCTION ENTRANCE
- SILT FENCE - MACHINE SLICED
- INLET PROTECTION
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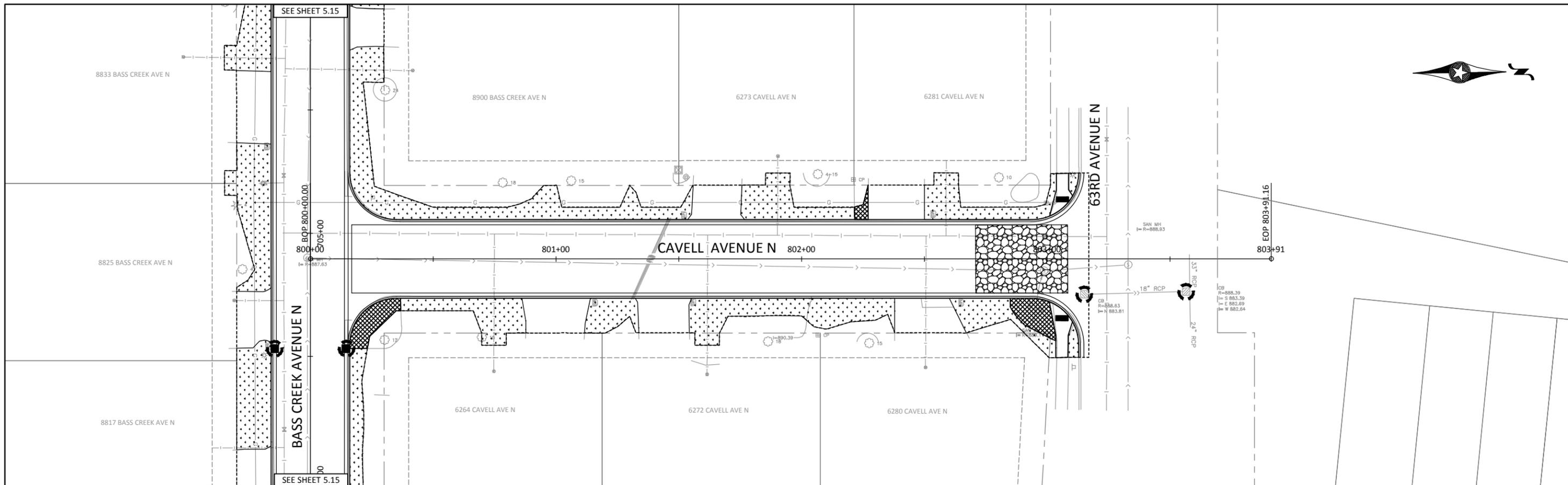
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 2016 STREET RECONSTRUCTION PROJECT
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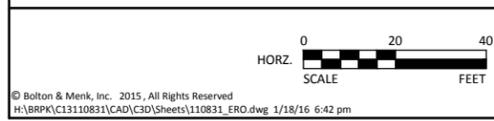


LEGEND

	SOD TYPE LAWN
	LANDSCAPE AREA
	ROCK CONSTRUCTION ENTRANCE
	SILT FENCE - MACHINE SLICED
	INLET PROTECTION
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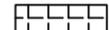
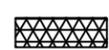
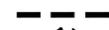
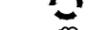
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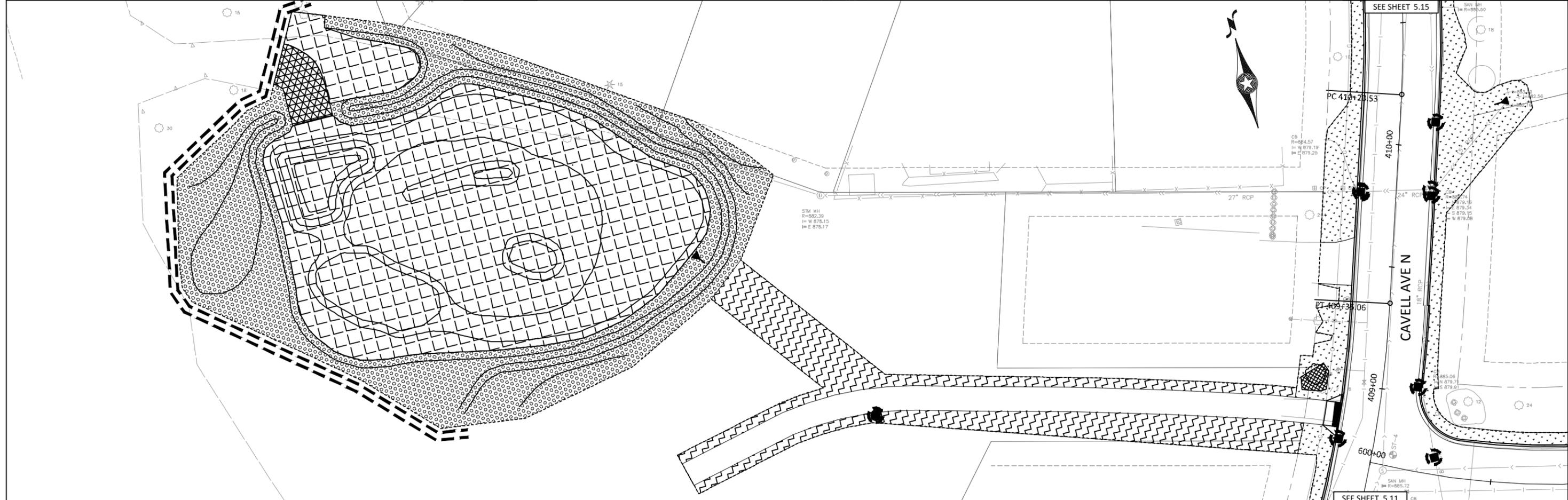
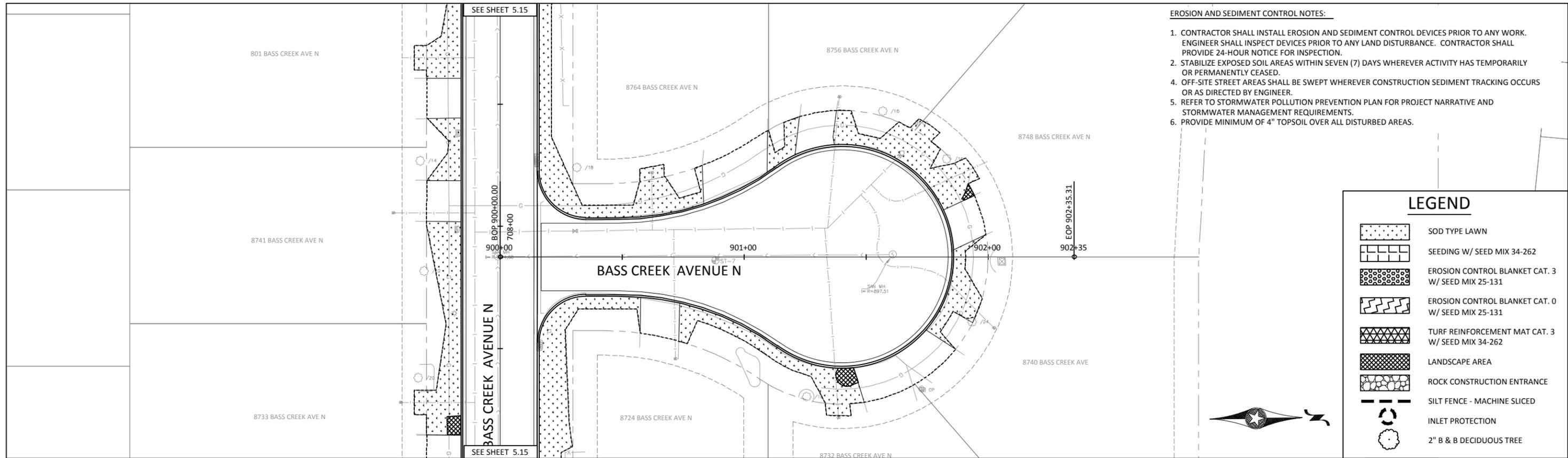
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LEGEND

-  SOD TYPE LAWN
-  SEEDING W/ SEED MIX 34-262
-  EROSION CONTROL BLANKET CAT. 3 W/ SEED MIX 25-131
-  EROSION CONTROL BLANKET CAT. 0 W/ SEED MIX 25-131
-  TURF REINFORCEMENT MAT CAT. 3 W/ SEED MIX 34-262
-  LANDSCAPE AREA
-  ROCK CONSTRUCTION ENTRANCE
-  SILT FENCE - MACHINE SLICED
-  INLET PROTECTION
-  2" B & B DECIDUOUS TREE



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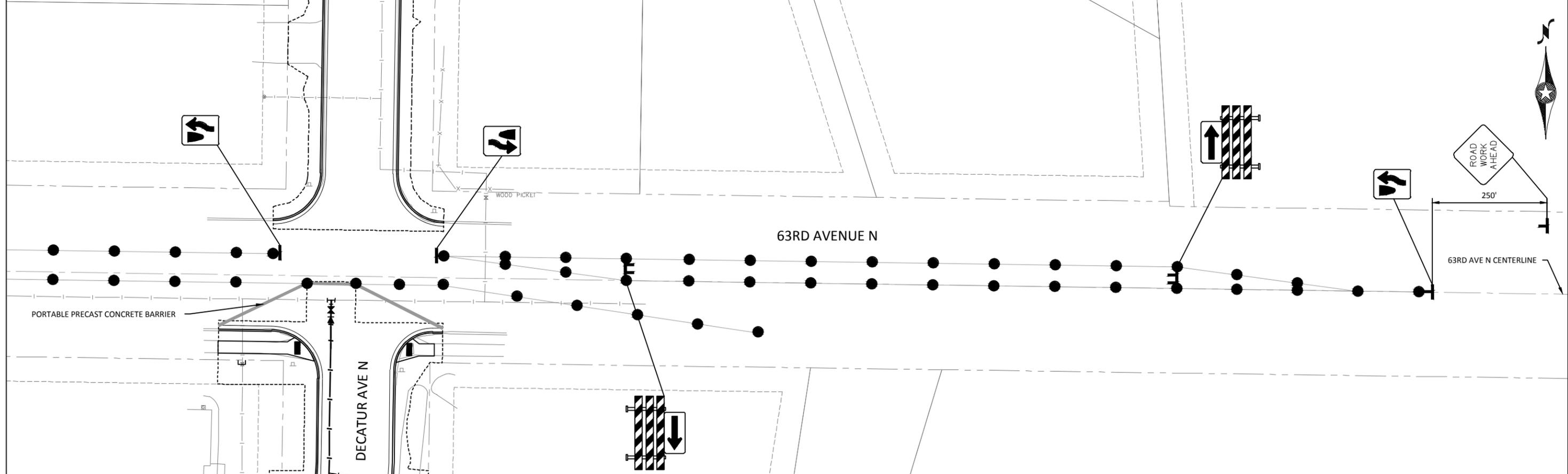
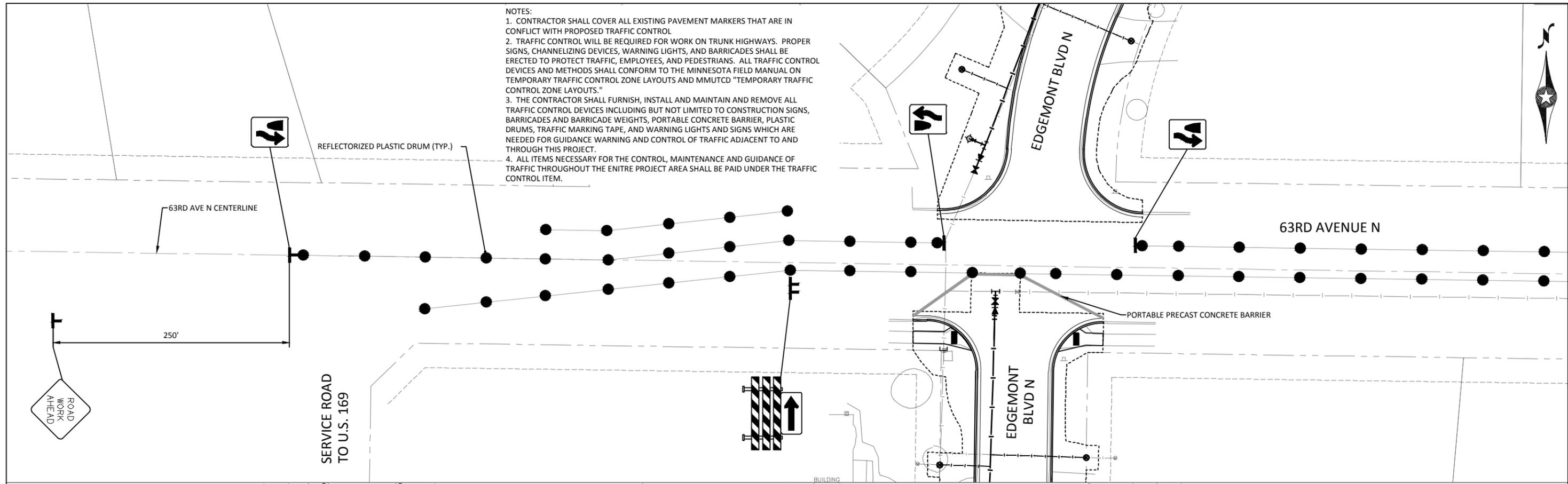
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CITY OF BROOKLYN PARK, MINNESOTA
2016 STREET RECONSTRUCTION PROJECT
EROSION CONTROL & TURF ESTABLISHMENT PLAN

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- NOTES:
1. CONTRACTOR SHALL COVER ALL EXISTING PAVEMENT MARKERS THAT ARE IN CONFLICT WITH PROPOSED TRAFFIC CONTROL
 2. TRAFFIC CONTROL WILL BE REQUIRED FOR WORK ON TRUNK HIGHWAYS. PROPER SIGNS, CHANNELIZING DEVICES, WARNING LIGHTS, AND BARRICADES SHALL BE ERECTED TO PROTECT TRAFFIC, EMPLOYEES, AND PEDESTRIANS. ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM TO THE MINNESOTA FIELD MANUAL ON TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS AND MMUTCD "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS."
 3. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN AND REMOVE ALL TRAFFIC CONTROL DEVICES INCLUDING BUT NOT LIMITED TO CONSTRUCTION SIGNS, BARRICADES AND BARRICADE WEIGHTS, PORTABLE CONCRETE BARRIER, PLASTIC DRUMS, TRAFFIC MARKING TAPE, AND WARNING LIGHTS AND SIGNS WHICH ARE NEEDED FOR GUIDANCE WARNING AND CONTROL OF TRAFFIC ADJACENT TO AND THROUGH THIS PROJECT.
 4. ALL ITEMS NECESSARY FOR THE CONTROL, MAINTENANCE AND GUIDANCE OF TRAFFIC THROUGHOUT THE ENTIRE PROJECT AREA SHALL BE PAID UNDER THE TRAFFIC CONTROL ITEM.



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CITY OF BROOKLYN PARK, MINNESOTA
 2016 STREET RECONSTRUCTION PROJECT
TRAFFIC CONTROL PLAN

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