

LEGEND

=====

CORPORATE LIMITS

CENTERLINE

EXISTING

R.O.W.

=====

PROPERTY LINE

UGT

UNDERGROUND TELEPHONE LINE

UGE

UNDERGROUND ELECTRIC LINE

UGE-3

UNDERGROUND ELECTRIC 3 PHASE

P-OH

OVERHEAD ELECTRIC LINE

GAS

GAS MAIN

PETRO

GASOLINE MAIN

UGTV

UNDERGROUND CABLE TV

UGFO

UNDERGROUND FIBER OPTIC LINE

□

TELEPHONE/CABLE TV PEDESTAL

□

CONTROL CABINET/TRANSFORMER

○

SIGN

□

CATCH BASIN

⊙

STORM SEWER MANHOLE

○

OUTLET CONTROL STRUCTURE

STORM SEWER LINE

=====

CONCRETE CURB & GUTTER

PROPOSED

=====

CONCRETE CURB & GUTTER

■

CATCH BASIN

STORM SEWER LINE

NOTE:

1. THE EXACT LOCATION OF UNDERGROUND UTILITIES SUCH AS GAS, TELEPHONE, FIBER OPTIC, ELECTRIC, CABLE TV, AND PIPE LINES ARE UNKNOWN. THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL (651-454-0002) BEFORE COMMENCING EXCAVATION.

2. THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINES FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES.

3. THESE PROJECTS AREA LOCATED WITHIN THE BOUNDARY OF THE LOWER RUM WATERSHED MANAGEMENT ORGANIZATION (LRRWMO)

N

ANDOVER

NO SCALE

PLAN REVISIONS SUMMARY

NO.	BY	DATE	REVISIONS

CITY OF

ANDOVER, MINNESOTA

CONSTRUCTION PLANS

FOR

2025 FULL DEPTH RECLAMATION (MEADOWS OF ROUND LAKE AREA)

CITY PROJECT 25-11A

AND

2025 SIDEWALK REPAIRS

CITY PROJECT 25-08

GOVERNING SPECIFICATIONS
THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.
CITY OF ANDOVER 2025 UTILITY AND STREET CONSTRUCTION SPECIFICATIONS SHALL APPLY.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST MMUTCD, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

SHEET	INDEX DESCRIPTION
1	TITLE SHEET
2	PROJECT LAYOUT
3	STATEMENT OF ESTIMATED QUANTITIES
4	STATEMENT OF ESTIMATED QUANTITIES / EARTHWORK SUMMARY / STORM SEWER TABLE
5	CONSTRUCTION NOTES
6-7	DETAILS
8	TYPICAL SECTIONS
9-14	STANDARD PEDESTRIAN CURB RAMP DETAILS
15-21	REMOVALS, STREET PAVING
22	2025 SIDEWALK REPAIRS LOCATION MAP
23	ELDORADO CUL-DE-SAC BASE BID UTILITIES (ALT. BID)

THIS PLAN CONTAINS 23 SHEETS

CITY OF ANDOVER

ANDOVER, MINNESOTA

I HEREBY CERTIFY THAT THIS PLAN 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

David D. Berkowitz

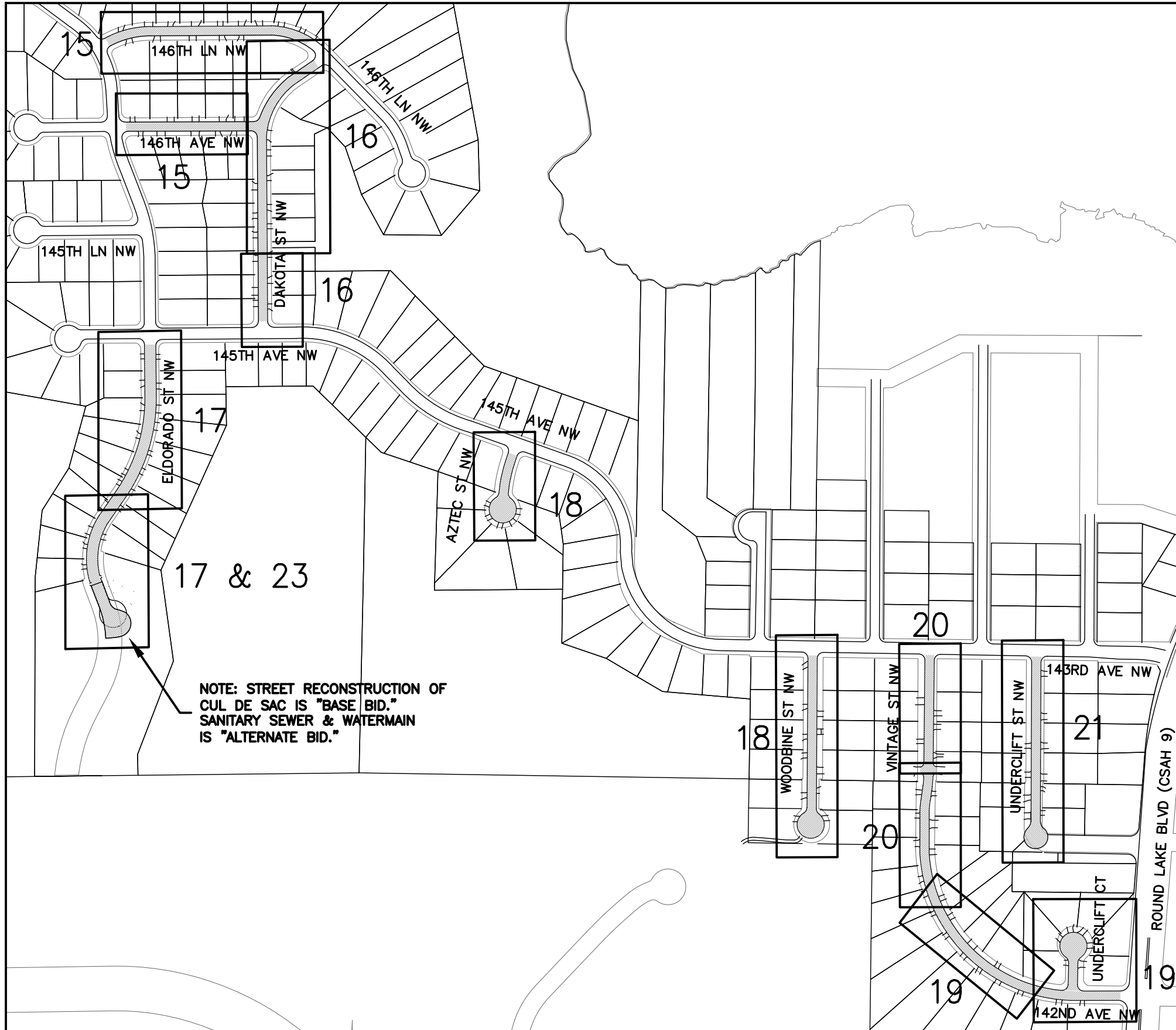
DAVID D. BERKOWITZ, PE

ANDOVER DIRECTOR OF PUBLIC WORKS / CITY ENGINEER

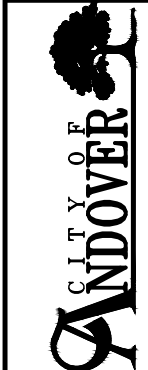
DATE MAY 6TH, 2025 LIC. NO. 26757

TITLE SHEET & LEGEND

SHEET NO. 1 OF 23 SHEETS



2025 FULL DEPTH RECLAMATION (25-11A)



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

David D. Berkowitz
DAVID D. BERKOWITZ
DATE MAY 6TH, 2025 REG. NO. 26757

DESIGNED	NO.	DATE	BY	DESCRIPTION OF REVISIONS
JUL				
DRAWN				
JBK				
CHECKED				
DOB				

C.P. 25-11A Base Bid Notes:

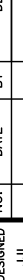
STATEMENT OF ESTIMATED QUANTITIES

C.P. 25-11A Alternate Bid Notes:

1. Core drill existing sanitary sewer manhole and install watertight boot.
2. Includes all items and appurtenances for complete installation, including 8x8 wye, 8" 45 degree bend, 8" PVC SDR 35 pipe, grouting flowline.

2025 FULL DEPTH RECLAMATION (C.P. 25-11A)

2025 SIDEWALK REPAIRS (C.P. 25-08)



DESIGNED _____ JUL _____

DRAWN _____ JKB _____

CHECKED _____ DDB _____

DATE MAY 6TH, 2025 REC. NO. 28757

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

DAVID D. BERKOWITZ

David D. Berkowitz

EARTHWORK TABLE		City Project 25-11A - Meadows of Round Lake Area	
Aggregate Base Class 7 (Reclaim)		Roadway Length =	6,507 LF
Existing 3" +/- of bituminous and 4"-5" +/- aggregate base based on road cores		Existing Bituminous Area =	23,720 SY
Reclaim 7-8" deep (pull some sand into reclaim)			
Salvaged Reclaim			
Volume of salvaged reclaim material (2.75") =	1,820 CY (CV)	2.75" over entire reclaimed area	
Volume of salvaged reclaim material (7") =	180	7" over existing Eldorado Street CDS	
Volume of salvaged reclaim material (7") =	20 CY (CV)	7" salvage in areas of subgrade correction, if any	30 LF x 24' wide
Total Salvaged Reclaim =	2,020 CY (CV)	Available material to be re-used on-site	
	3,030 CY (LV)		
Salvaged Reclaim / Class 5 Required			
Volume required for Eldorado Street CDS (12" +/-)	300 CY (CV)	Use salvaged reclaim to build up Eldorado St CDS	
Volume required in subgrade correction Areas (5" min.) =	20 CY (CV)		
Total Salvaged Reclaim / Class 5 Required	320 CY (CV)		
Subgrade Excavation			
Volume of subgrade exc. material for profile lowering =	0 CY (EV)		
Volume of subgrade exc. material - correction areas (3') =	90 CY (EV)	Assume 3' depth in correction excavation, if any areas found	
Total Salvaged Reclaim =	90 CY (EV)		
Common Excavation			
Volume of common exc. material - Eldorado CDS =	170 CY (EV)	Strip topsoil, excavate 6" +/- over new Eldorado St CDS location outside of existing road core.	
Total Common Excvatation =	170 CY (EV)		
Topsoil Borrow			
Volume of topsoil in curb replacement areas =	222 CY (CV)	Assume 1.75' wide x 1' deep	
Volume of topsoil over existing Eldorado St CDS =	33 CY (CV)	3" over disturbed area of Eldorado St CDS removal	
Total Topsoil Borrow =	510 CY (CV)	Utilize any salvaged common exc. if suitable.	

EARTHWORK SUMMARY		
Reclaimed Aggregate Base		
Volume of salvaged reclaim material available =	2,020 CY (CV)	
Volume of required reclaim material =	320 CY (CV)	
Balance of reclaim material =	1,700 CY (CV)	
	2,550 CY (LV)	Haul and dispose of excess. Excess property of contractor
Common Excavation	170 CY (EV)	Haul and dispose of unsuitable, excess material off-site. Use clean material where existing Eldorado St CDS removed.
Subgrade Excavation	90 CY (EV)	Haul and dispose of unsuitable and excess material off-site.
Topsoil Borrow	510 CY (CV)	
	720 CY (LV)	
Select Granular Borrow	120 CY (LV)	For backfill of subgrade correction, if necessary and if material needed for Eldorado St CDS subgrade. Only used if sufficient material not available on-site.
Excess Excavation Material to Dispose of Off-Site	1,900 CY (EV)	Excess reclaim, and assumed 75% of common exc material and subgrade exc material
	2,470 CY (LV)	Note: Does not include common excavation behind curb replacement (incidental to curb removal)

Swell Factors
EV to LV = 1.3 LV to CV = 1.5 (For reclaimed material)
LV to CV = 1.4 1 CY Class 5 = 2 tons (147 #/CF)

BASIS OF ESTIMATED QUANTITIES		
Bituminous Wear Course	120	# / SY / inch
Bit. Non-Wear Course	120	# / SY / inch
Aggregate Base, Class 5	110	# / SY / inch
Tack Coat	0.05	Gal / SY
Fertilizer Type 1 (Analysis 20-10-10)	200	# / acre
Seed Mxture 25-151	200	# / acre

2025 Sidewalk Repairs
City Project: 25-08
STATEMENT OF ESTIMATED QUANTITIES

2025 Sidewalk Repairs City Project: 25-08					TOTAL ESTIMATED QUANTITIES	
NOTES	ITEM NO.		DESCRIPTION	UNIT	EST. QUAN.	ACT. QUAN.
	201	2021.501	Mobilization	LS	1	
	202	2104.503	Sawing Concrete Pavement (Full Depth)	LF	50	
1	203	2104.518	Remove Concrete Pavement	SF	230	
	204	2521.518	4" Concrete Walk	SF	230	
	205	2563.601	Traffic Control	LS	1	
	206	2574.507	Loam Topsoil Borrow (LV)	CY	2	
	207	2574.508	Fertilizer Type 3	LB	2	
	208	2575.504	Rolled Erosion Prevention Category 20	SY	20	
	209	2575.505	Seeding	ACRE	0.01	
	210	2575.508	Seed Mixture 25-151	LB	2	

C.P. 25-08 Notes:
1. Regardless of depth.

2025 FDR: (Meadows of Round Lake Area) (C.P. 25-11A)								
CB / MH #	Fill Sump / Pour Invert (CY) (2)	Structure Diameter (ft)	Sump Depth (ft)	Mud Dog House (Each)	Mud Rings (Each)	Adjust Frame & Ring Casting (Each)	Salvage & Install Casting (Each)	# Exist Rings (Inches) (1)
DCB108	0.8	4	1		1			6
DCB109		4	1		1			6
DCB112	0.8	4	1		1			12
DCB116	1.2	5	1		1			8
DCB117		5	1		1			4
DCB118	1.2	5	1		1			6
DCB114		4	1	1	1			6
DCB115	0.8	4	1		1			4
DCB428		4	1		1			12
DCB429		4	1				1	4
DCB1745		4	1	1	1			8
DCB1746	0.8	4	1		1			4
DCB1747	0.8	4	1		1			2
Total	7			2	12	0	1	
Notes 1): When installing casting, 6" and 1' rings shall be used so that there are no more than 5 rings per casting. 2) Mudding of doghouses incidental to filling CB sump.								

DESIGNED
JUL

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JUL

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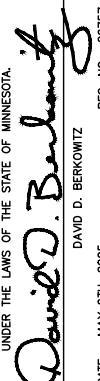
NO.

DATE

BY

DESCRIPTION OF REVISIONS

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DAVID D. BERKOWITZ

REG. NO. 26757

DATE MAY 6TH, 2025

CITY OF ANDOVER

2025 FULL DEPTH RECLAMATION (C.P. 25-11A)

GENERAL NOTES:

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. CITY OF ANDOVER 2025 UTILITY AND STREET CONSTRUCTION SPECIFICATIONS SHALL APPLY.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINES FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO AND BE INSTALLED IN ACCORDANCE WITH THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD)" AND THE "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS FIELD MANUAL", NEWEST ADDITIONS.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE EXCAVATING 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. THE CONTRACTOR IS REQUIRED TO CALL GOPHER ONE CALL AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION. (651-454-2000)

CONSTRUCTION NOTES:

ROAD WORK AHEAD SIGNS SHALL BE MAINTAINED AT ALL INTERSECTING ROADS TO THE PROJECT. TYPE B CHANNELIZERS SHALL BE USED IN ALL NECESSARY LOCATIONS. TRAIL CLOSED SIGNS ON TYPE III BARRICADES SHALL BE PLACED AT ALL LOCATIONS IMPACTED BY PEDESTRIAN RAMP/SIDEWALK/TRAIL IMPROVEMENTS.

CONSTRUCTION SHALL BE STAGED SUCH THAT TRAFFIC IS MAINTAINED AT ALL TIMES. CONTRACTOR SHALL USE FLAG PERSON, IF NEEDED (INCIDENTAL TO TRAFFIC CONTROL).

COMPACTION OF ALL BITUMINOUS MIXTURE SHALL BE BY THE "SPECIFIED DENSITY METHOD" EXCEPT FOR PATCHES AND TRAILS, WHICH SHALL BE BY THE "ORDINARY COMPACTION METHOD".

THE CONTRACTOR SHALL USE FLAG PERSON'S AND APPROPRIATE TRAFFIC CONTROL DEVICES TO DIRECT TRAFFIC AT INTERSECTING COUNTY ROADS. ALL TRAFFIC CONTROL MUST BE ACCEPTABLE TO THE ANOKA COUNTY HIGHWAY DEPARTMENT. CONTRACTOR SHALL APPLY FOR A PERMIT FOR WORKING WITHIN ANOKA COUNTY RIGHT OF WAY. PROVIDE A COPY OF COUNTY PERMIT TO CITY ENGINEER.

ABSENT A ROAD CLOSURE, RECONSTRUCTION SHALL BE PERFORMED IN A MANNER TO ALLOW LOCAL TRAFFIC TO BE MAINTAINED TO A MINIMUM OF HALF THE ROADWAY WIDTH. THE CONTRACTOR SHALL USE FLAG PERSON'S TO DIRECT TRAFFIC AS NEEDED.

CONTRACTOR SHALL PROVIDE 3 DAY NOTICE PRIOR TO POTENTIAL ROAD CLOSURE FOR UNDERGROUND UTILITY CONSTRUCTION. TYPE 3 BARRICADES WITH "ROAD CLOSED" SHALL BE INSTALLED ON BOTH SIDES OF UTILITY CONSTRUCTION ACTIVITY. STAGE CONSTRUCTION TO ALLOW FOR LOCAL RESIDENT ACCESS AS NEEDED.

DURING ALL ASPECTS OF CONSTRUCTION DRIVEWAYS SHALL BE RAMPED WITH GRAVEL IN A TIMELY MANNER TO PROVIDE RESIDENTS ACCESS. UPON THREE DAYS OF CURE, CONC. CURBING AT DRIVEWAYS SHALL BE BACKFILLED & RAMPED WITH GRAVEL TO PROVIDE ACCESS.

DURING THE CONSTRUCTION OF CONC. CURB & DRIVEWAYS, THE CONTRACTOR SHALL COORDINATE WITH ENGINEER TO NOTIFY RESIDENTS OF PENDING CONSTRUCTION ACTIVITY. A THREE DAY NOTICE IS REQUIRED PRIOR TO POURING CONC. CURB & DRIVEWAYS. IMMEDIATELY UPON COMPLETION THE ROADWAY SHALL BE GRADED TO ALLOW RESIDENTS TO PARK ON STREET ADJACENT TO THEIR PROPERTY.

CONCRETE CURBING SHALL BE KNOCKED DOWN AT ALL DRIVEWAY ENTRANCES (INCIDENTAL). CONSTRUCT B618 C&G ON ALL RADII, CATCH BASIN LOCATIONS & ADDITIONAL LOCATIONS AS NOTED ON PLAN. (PAID AS SURMOUNTABLE C&G).

EXISTING MAILBOXES SHALL BE SALVAGED AND REINSTALLED WHERE CALLED OUT IN PLANS. DURING CONSTRUCTION TEMPORARY MAILBOXES SHALL BE PLACED NEAR THE ORIGINAL MAILBOX LOCATION. THE TEMPORARY MAILBOXES SHALL BE MOUNTED ON BARRELS TO BE PORTABLE. PROPERTY OWNER MAY SUPPLY NEW POST AND/OR BOX TO BE PLACED IN THE ORIGINAL LOCATION.

RESIDENTS WILL BE ASKED TO MARK IRRIGATION PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SYSTEMS. WHERE BOULEVARD IRRIGATION MODIFICATIONS ARE REQUIRED THE IRRIGATION LINES/HEADS SHALL BE REMOVED & DISPOSED. REMAINING LINES SHALL BE PLUGGED & MARKED. ALL REPLACED IRRIGATION LINES/HEADS SHALL BE WITH NEW COMMERCIAL GRADE MATERIALS. CONTRACTOR WILL BE PAID A UNIT PER HEAD REPLACED. EXISTING LOCATIONS SHOWN ON PLANS ARE ONLY SCHEMATIC. ALL WORK SHALL BE BY AN IRRIGATION CONTRACTOR LICENSED TO WORK IN THE CITY OF ANDOVER.

THE CONTRACTOR SHALL PROTECT, SALVAGE AND REPAIR ALL EXISTING LANDSCAPING IN KIND. THIS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

THE FOLLOWING CONSTRUCTION ITEM'S SHALL OCCUR PRIOR TO COMMENCING THE RECLAIMING OPERATION. INSTALL TRAFFIC CONTROL, REMOVE STREET SIGN'S (CITY), INSTALL TEMP. EROSION CONTROL MEASURES, IDENTIFY & CAP IRRIGATION SYSTEMS IN AREAS OF CURB REPLACEMENT, SALVAGE LANDSCAPING, REMOVE EX. & INSTALL TEMP. MAILBOX'S WHERE IDENTIFIED IN PLANS, EXCAVATE BOULEVARD MATERIAL PER TYPICAL SECTION.

MACHINE CURB ON STRETCHES OVER 100'. ALSO, SALVAGE AND INSTALL MAILBOXES IN AREAS WHERE THERE WILL BE MACHINE CURB.

EXISTING DRIVEWAYS SHALL BE SAWCUT AS DIRECTED BY ENGINEER, REMOVED AND DISPOSED OF OFF SITE . BITUMINOUS AND CONCRETE DRIVEWAYS SHALL BE REPLACED IN KIND. GRAVEL DRIVEWAYS SHALL BE REPLACED WITH A 10-15' BITUMINOUS APRON. ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITY SHALL BE SAWCUT AND REPAIRED IN KIND AT THE CONTRACTORS EXPENSE.

WHERE SUBGRADE EXCAVATION UTILITY WORK OCCURS WITHIN THE ROADWAY THE RECLAIMED BASE SHALL BE SALVAGED & REPLACED PER THE TYPICAL SECTION (INCIDENTAL). THIS WORKSHALL BE DONE IN A MANNER SO RECLAIMED BASE IS NOT CONTAMINATED WITH SPOIL MATERIAL. COMPACTION OF THE RECLAIMED BASE MATERIAL SHALL BE ACHIEVED BY THE PENETRATION INDEX METHOD IN ACCORDANCE WITH MNDOT 2211.3C3. THE BOTTOM OF THE SUBCUTS SHALL BE SHAPED AND COMPACTED BY THE "QUALITY COMPACTION METHOD"

THE CONTRACTOR SHALL STRIP AND STOCKPILE EXISTING TOPSOIL MATERIAL, IF ANY, FOR RE-USE (LITTLE IS EXPECTED). RE-USED TOPSOIL SHALL BE CLEAN WITH NO SOD CHUNKS / EXISTING VEGETATION. TOPSOIL STRIPING, IF ANY, SHALL BE CONSIDERED INCIDENTAL.

SELECT EXCAVATED MATERIALS SHALL BE UTILIZED TO THE FULLEST EXTENT WITHIN THE PROJECT LIMITS TO BACKFILL PROPOSED CURB & GUTTERS. ANY EXCESS MATERIAL, OR MATERIAL WITH DEBRIS / SOD CHUCKS SHALL BE DISPOSED OF OFF-SITE.

EXCAVATION AND DISPOSAL OF SOIL/TURF MATERIAL SHALL BE INCIDENTAL TO REMOVAL PAY ITEMS UNLESS OTHERWISE NOTED. CONTRACTOR SHALL MINIMIZE EXCAVATION AND DISTURBANCE ALONG THE PROJECT CORRIDOR.

ALL DISTURBED AREAS SHALL BE BACKFILLED WITH SALVAGED TOPSOIL, IF ANY. DISTURBED AREAS SHALL BE RESTORED WITH TOPSOIL, FERTILIZER, & SOD. ALL RESTORATION SHALL OCCUR WITHIN 7 DAYS OF GRADING COMPLETION. SOIL STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS OF ROUGH GRADING OR INACTIVITY (INCIDENTAL). RESTORATION WORK SHALL BE COMPLETED PRIOR TO PAVING WEARING COURSE.

ALL EXISTING SIGNS SHALL BE REMOVED AND REPLACED BY THE ANDOVER SIGN DEPARTMENT UNLESS CALLED OUT OTHERWISE IN THE PLANS. COORDINATE WITH MINIMUM 48 HOUR NOTICE WITH ENGINEER IN FIELD.

CONCRETE WASHOUT SHALL BE CONTAINED WITHIN CONCRETE TRUCKS, NOT DISPOSED OF ON-SITE.

CONTRACTOR SHALL SWEEP ALL MATERIAL OFF ADJACENT STREETS DUE TO CONSTRUCTION ACTIVITY, DAILY AS NECESSARY (INCIDENTAL).

CONTRACTOR IS REQUIRED TO REPAIR AND MAINTAIN ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES (INCIDENTAL).

CONTRACTOR SHALL REMOVE ALL TEMPORARY SEDIMENT CONTROL PRACTICES ONCE VEGETATION IS RE-ESTABLISHED (INCIDENTAL).

REFER TO SWPPP IN PROJECT SPECIFICATION FOR ADDITIONAL CONSTRUCTION/EROSION CONTROL REQUIREMENTS.

WHEN CONNECTING NEW PAVED SURFACING TO ANY IN-PLACE PAVEMENTS, CUT VERTICALLY TO THE BOTTOM OF THE IN-PLACE PAVEMENTS OR TO THE BOTTOM OF THE NEW SURFACING, WHICHEVER IS DEEPER, THEN AT 2(V):1(H) SLOPE TO THE TOP OF THE SUBGRADE.

DESIGNED
JUL

DRAWN
JBK

CHECKED

DOB

NO.

DATE

BY

DESCRIPTION OF REVISIONS


DATE
MAY 6TH, 2025

REG. NO.
26757

DAVID D. BERKOWITZ

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

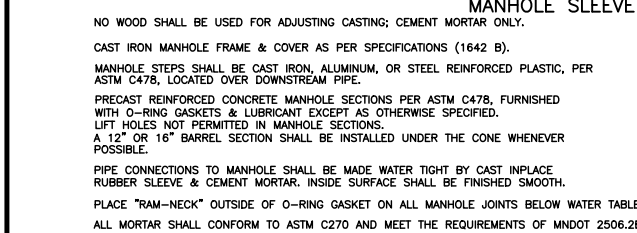
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ANDOVER



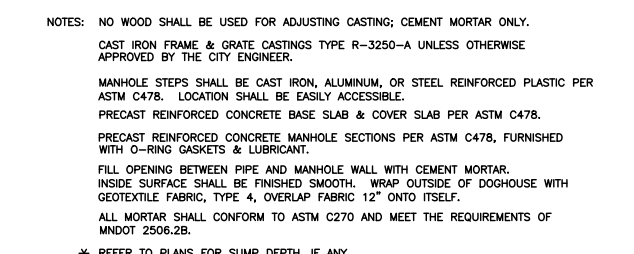
2025 FULL DEPTH RECLAMATION (C.P. 25-11A)

CONSTRUCTION NOTES

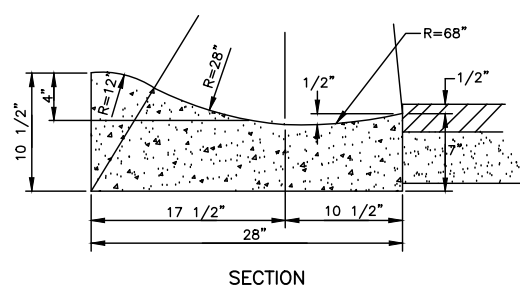
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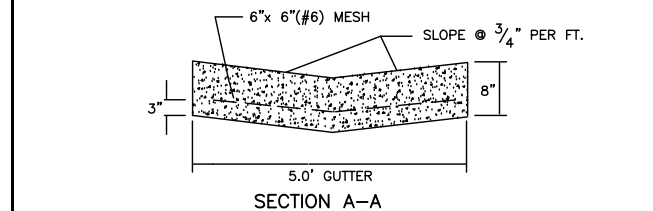
11/17/2020



1/10/20



12/26/00



2/19/08

3/4" CRUSHED ROCK

STORM SEWER INLET

1/2" HOLES 4" APART

PLAN

SUBGRADE

6" OF 3/4" CRUSHED ROCK OVER STEEL PLATE WITH 1/2" HOLES

SECTION

ROCK FILTER FOR STORM SEWER INLET

2/19/09

IN. X 2 IN. X 24 IN. LONG WOODEN STAKES SHALL BE DRIVEN THROUGH THE BACK HALF OF THE SEDIMENT CONTROL LOG AT AN ANGLE OF 45 DEGREES WITH THE TOP OF THE STAKE POINTING UPSTREAM. ①

SEDIMENT CONTROL LOG

8 IN. - 10 IN. EMBEDMENT DEPTH

FLOW

45°

BACKFILL AND COMPACT SOIL FROM TRENCH ON UPGRADIENT SIDE OF SEDIMENT CONTROL LOG.

PLACE SEDIMENT CONTROL LOG IN SHALLOW TRENCH (1 TO 2 IN. DEPTH).

TYPES: STRAW, WOOD FIBER, OR COIR

1 IN. X 2 IN. X 24 IN. LONG WOODEN STAKES, AS NEEDED, STAKES SHALL BE DRIVEN OVER THE SEDIMENT CONTROL LOG AT AN ANGLE OF 45 DEGREES WITH THE TOP OF THE STAKE POINTING UPSTREAM. ②

SEDIMENT CONTROL LOG

8 IN. - 10 IN. EMBEDMENT DEPTH

FLOW

45°

① SPACE BETWEEN STAKES SHALL BE A MAXIMUM OF 1 FOOT FOR DITCH CHECKS OR 2 FEET FOR OTHER APPLICATIONS.

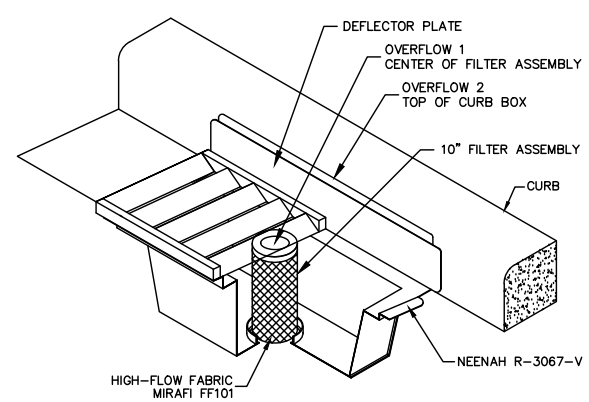
② PLACE STAKES AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS. STAKES SHALL BE INCIDENTAL.

TYPES: WOOD CHIP, COMPOST, OR ROCK


SEDIMENT CONTROL LOGS

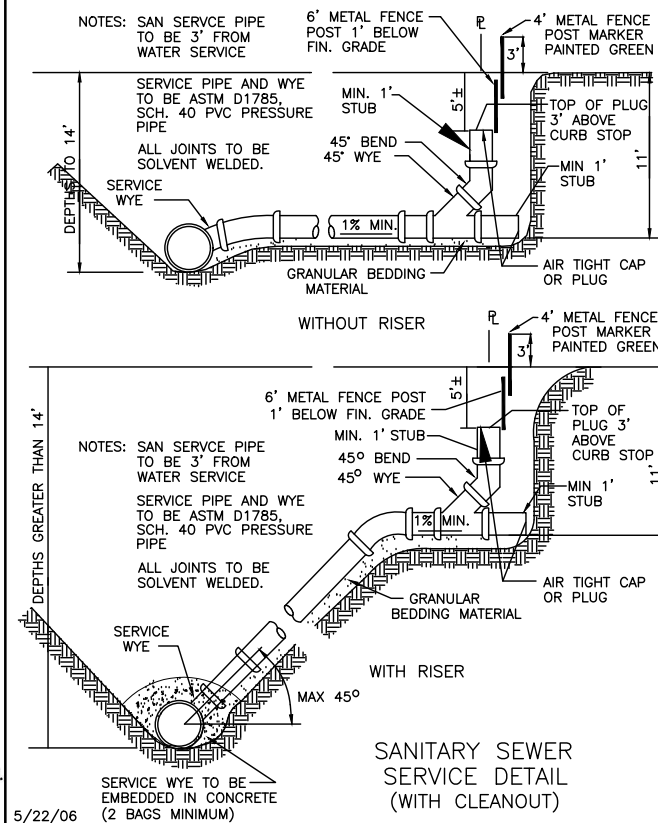
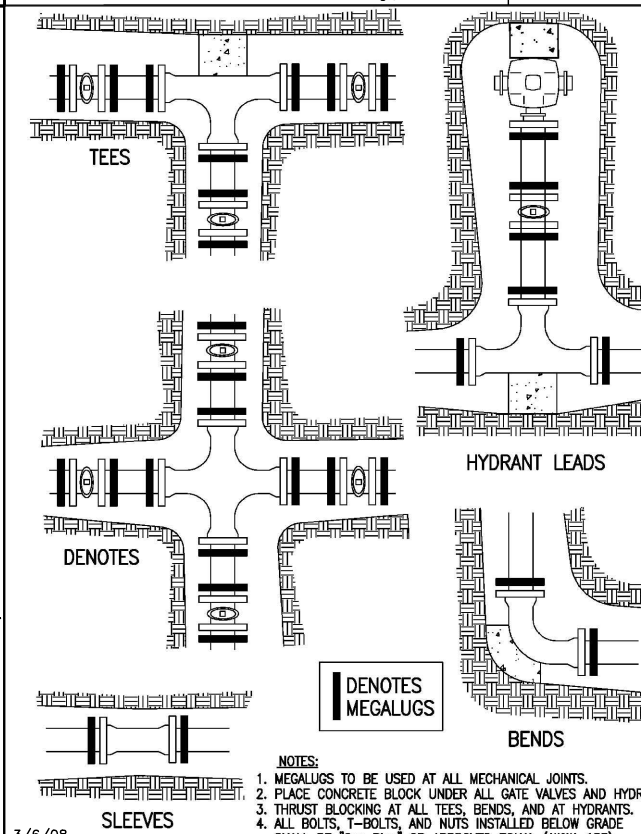
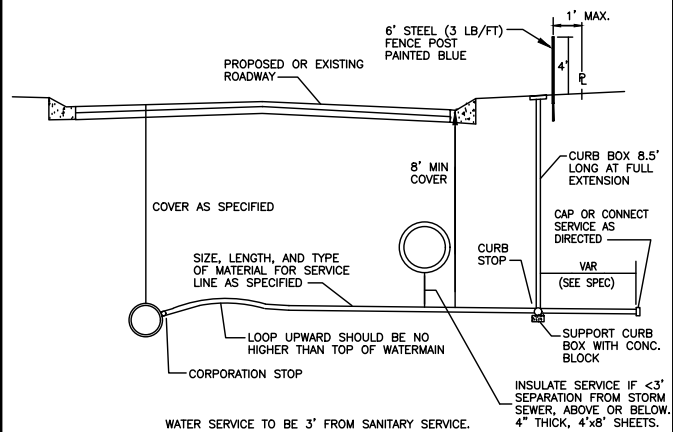
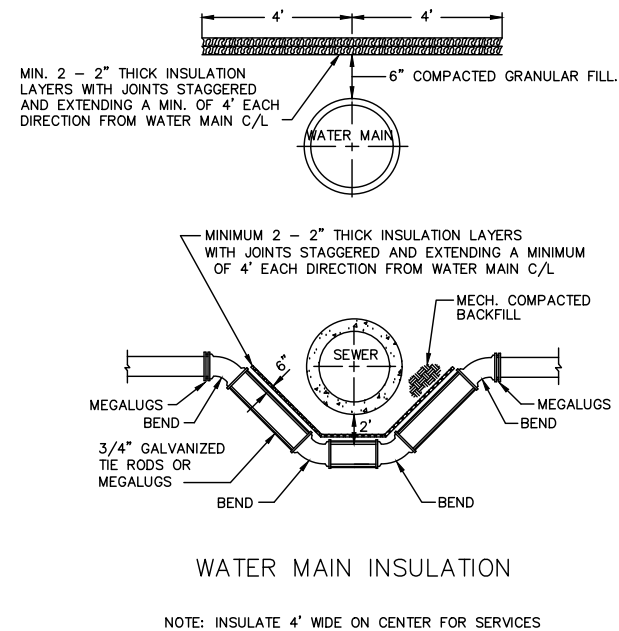
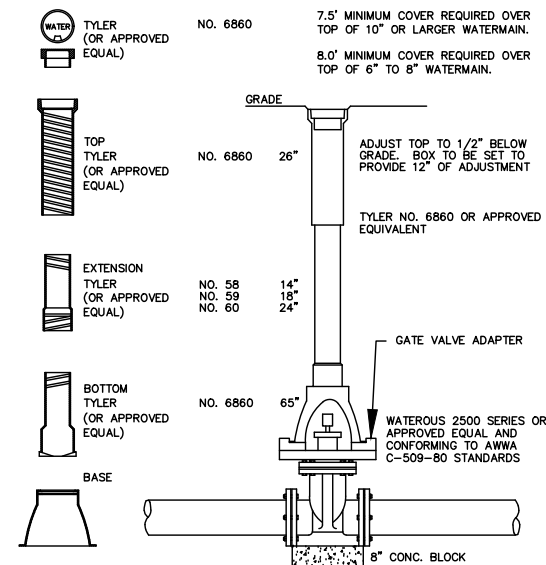
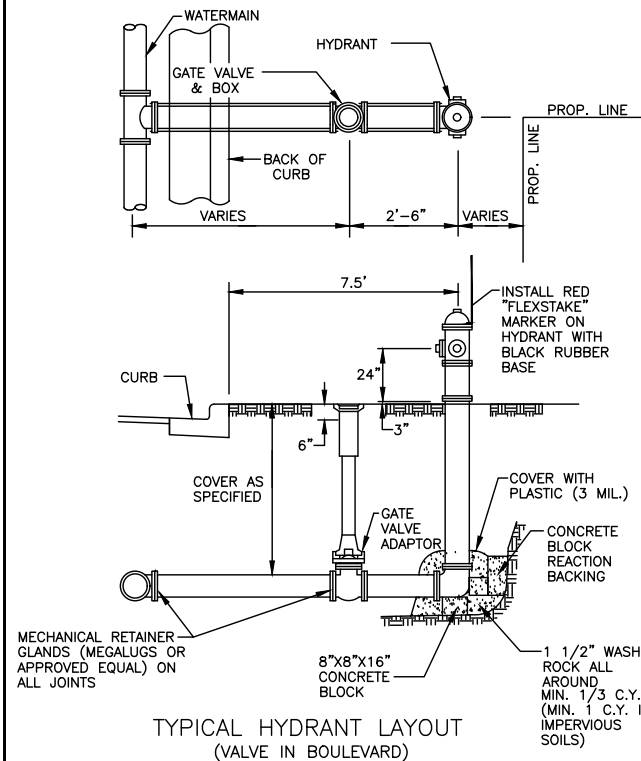
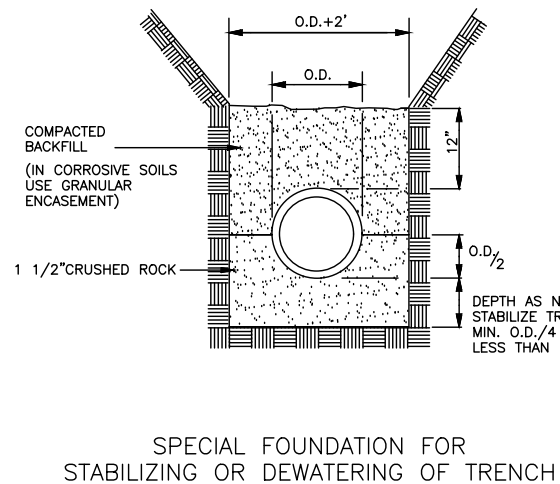
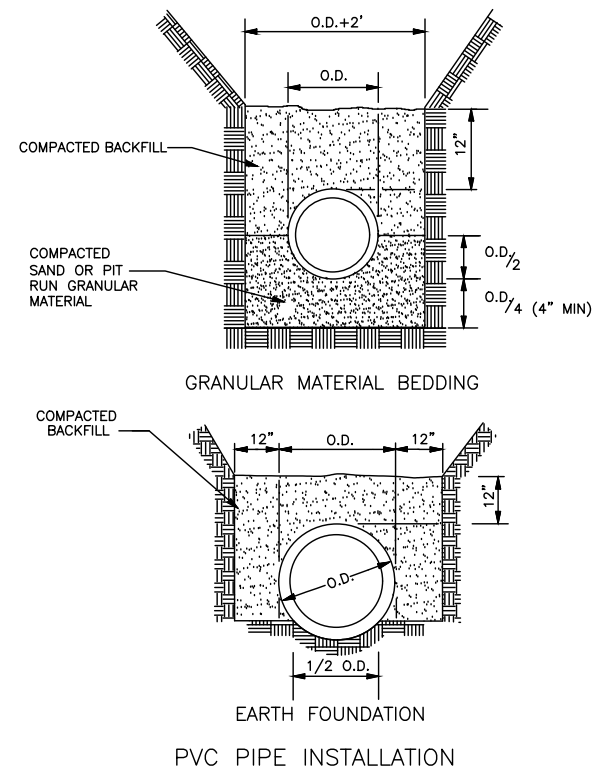
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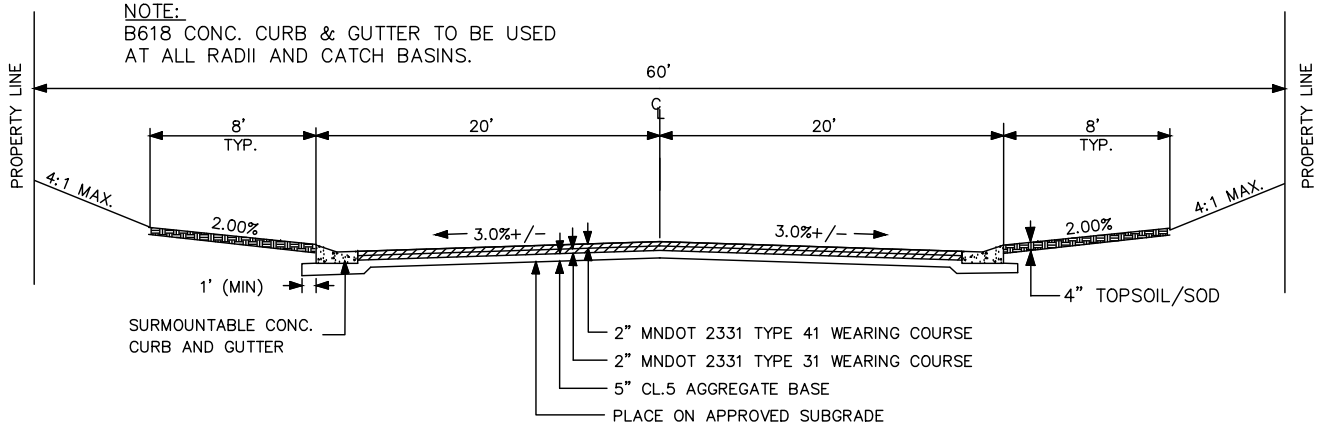
OCCUR WITHIN 7 DAYS OF THE FINAL GRADING.



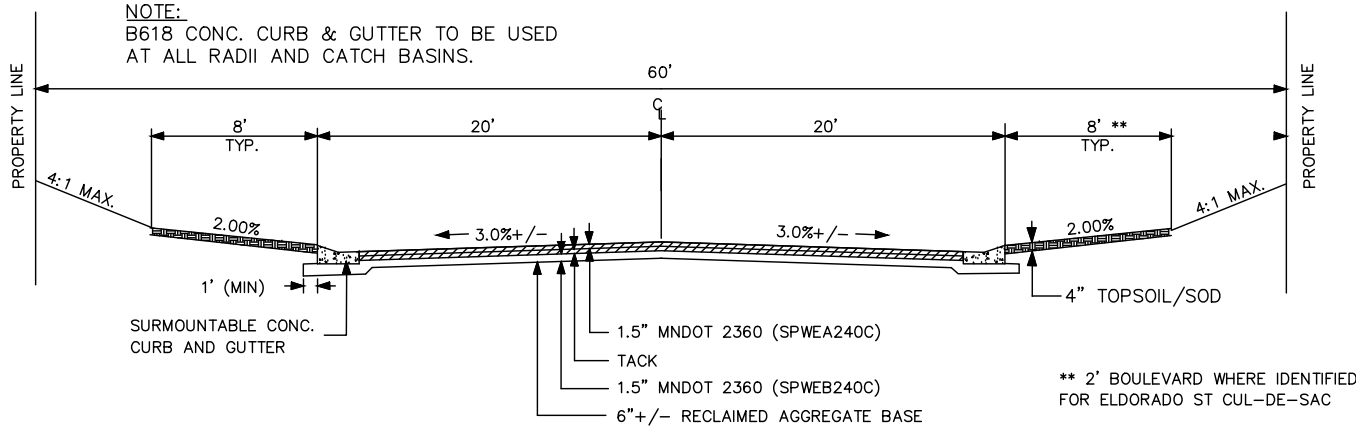


I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	DAVID D. BERKOWITZ 		DESIGNED	NO.	DATE	BY	DESCRIPTION OF REVISIONS
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			DRAWN				
			JBK				
			CHECKED				
			DOB				
DATE MAY 6TH, 2025		REG. NO. 26757					

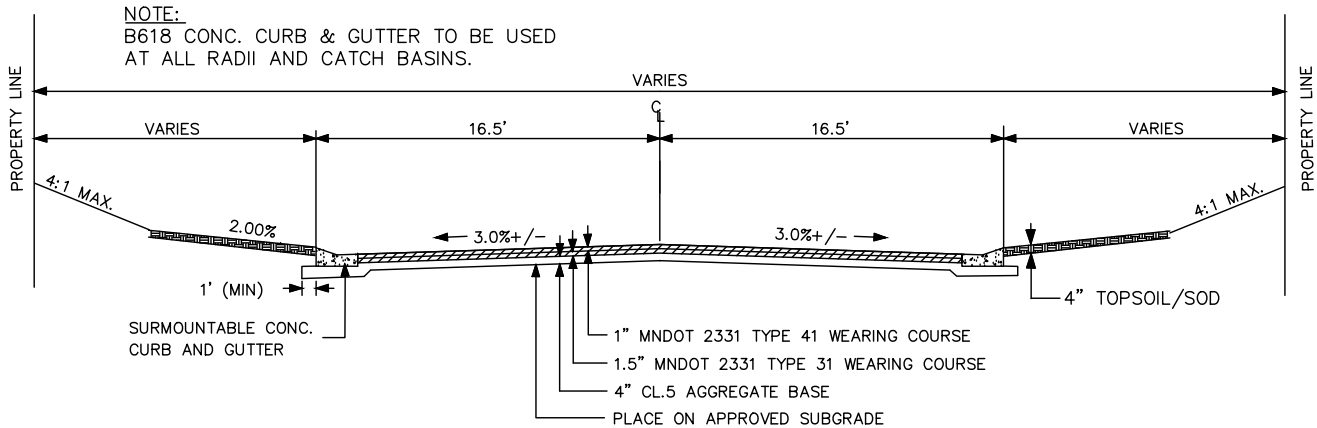
RECLAIM 7" +/- DEPTH, OR AS NECESSARY TO PROVIDE HOMOGENEOUS MIXTURE MEETING GRADATION SPEC IN MNDOT 2215.



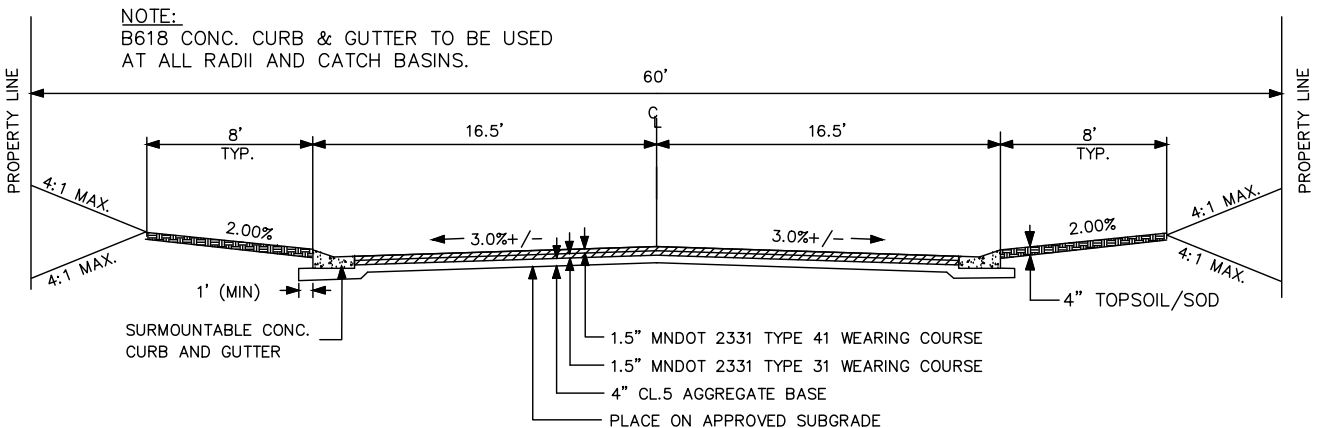
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ELDORADO ST



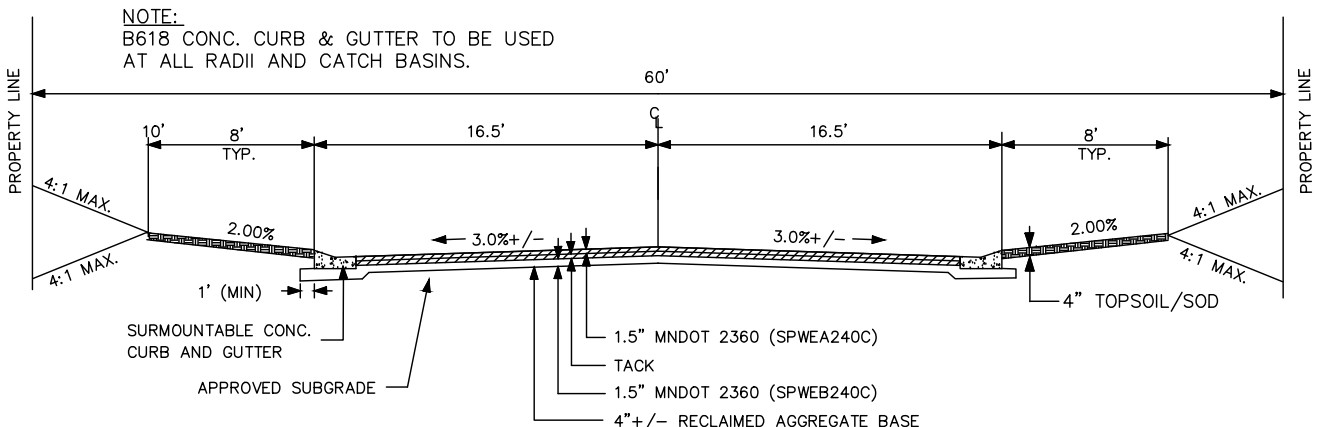
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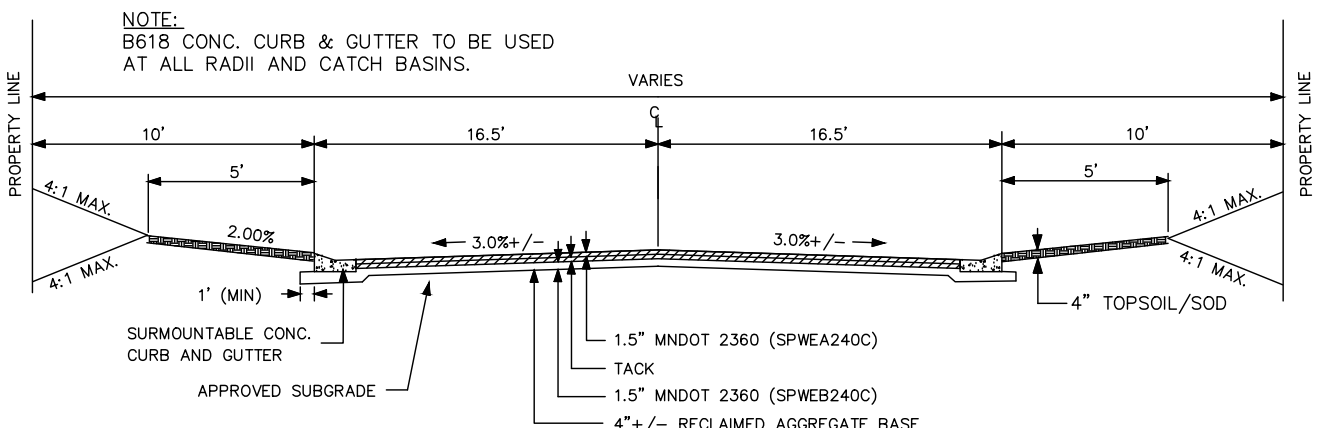
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VINTAGE ST NW & 142ND AVE NW



25-11A EXISTING STREET SECTION



25-11A PROPOSED STREET SECTION



25-11A PROPOSED STREET SECTION
VINTAGE ST NW & 142ND AVE NW

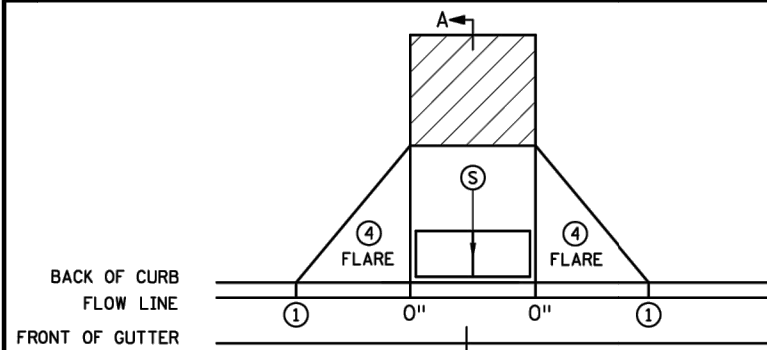
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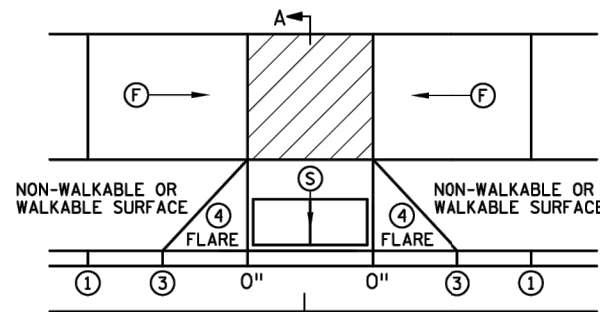
David D. Berkowitz
DAVID D. BERKOWITZ
REG. NO. 26757
DATE MAY 6TH, 2025

CITY OF ANDOVER

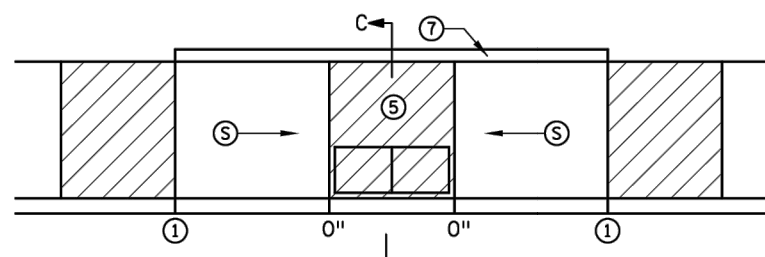
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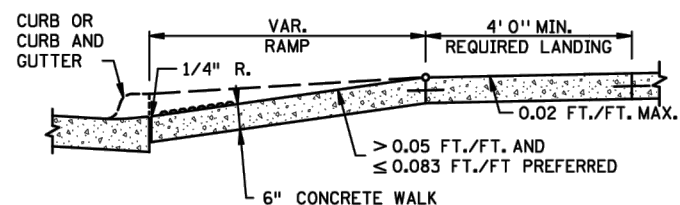
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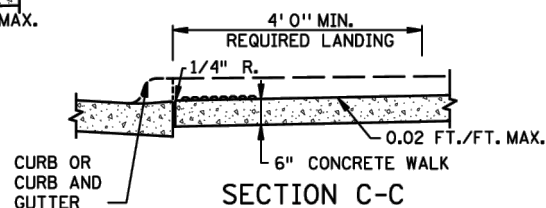
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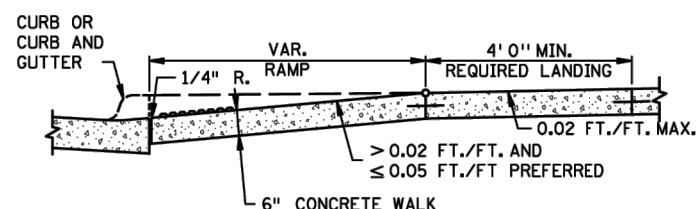
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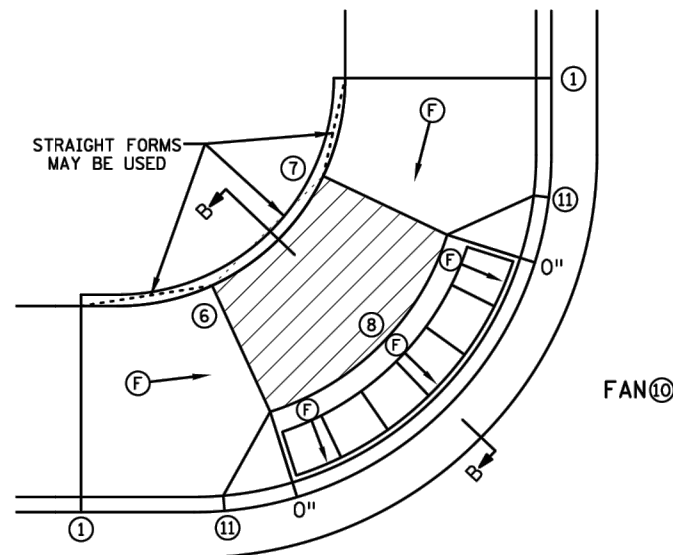
SECTION A-A
PERPENDICULAR/TIERED/DIAGONAL



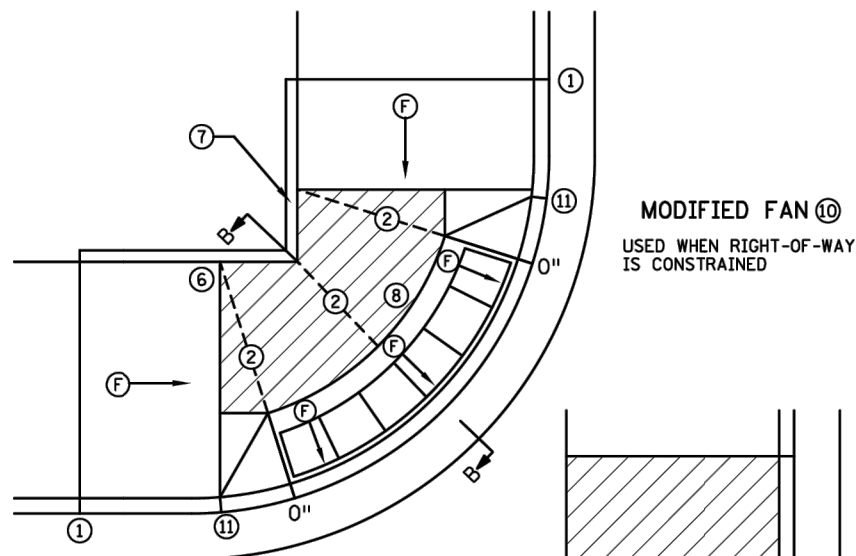
SECTION C-C
PARALLEL/DEPRESSED CORNER



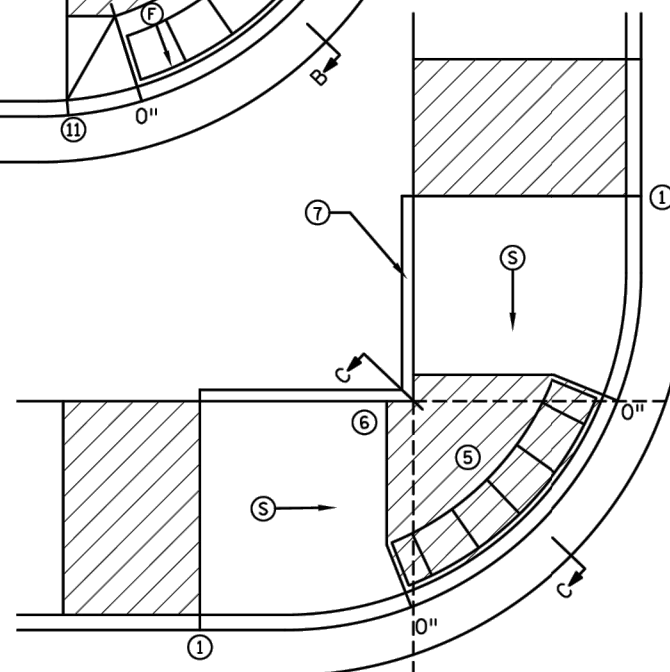
SECTION B-B
FAN



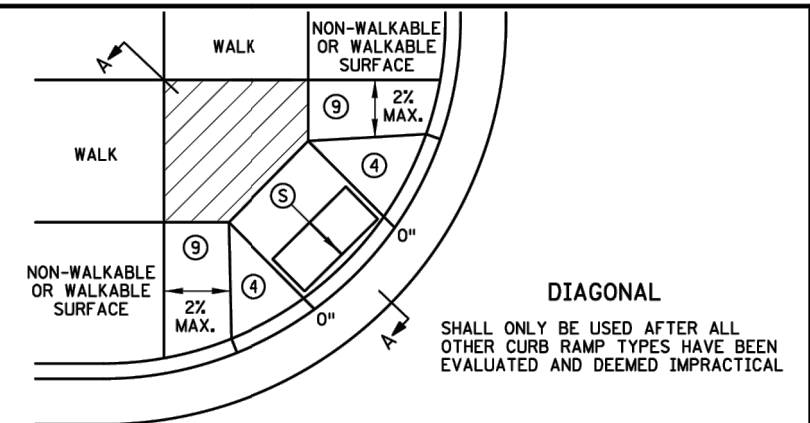
FAN ⑩



MODIFIED FAN ⑩
USED WHEN RIGHT-OF-WAY IS CONSTRAINED



DEPRESSED CORNER



DIAGONAL

SHALL ONLY BE USED AFTER ALL OTHER CURB RAMP TYPES HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL

NOTES:

- LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.
- 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, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.
- SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30' OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.
- CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.
- ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL, THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH, EXCEPT AS STATED IN ⑥ BELOW.
- TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR, FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 OF 6 FOR ALL SEPARATELY POURED INITIAL LANDINGS.
- WHEN SIDEWALK IS AT BACK OF CURB, TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE. MAINTAIN POSITIVE BOULEVARD DRAINAGE TO TOP OF CURB.
- ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.
- 4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF, WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.
- WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.
- 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.
- ① MATCH FULL HEIGHT CURB.
- ② 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.
- ③ 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.
- ④ SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.
- ⑤ DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.
- ⑥ THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK. THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)
- ⑦ WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS LESS THAN 5% RUNNING SLOPE SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
- ⑧ A 7' MIN TOP RADIUS GRADE BREAK IS REQUIRED TO BE CONSTRUCTIBLE.
- ⑨ PAVE FULL WALK WIDTH.
- ⑩ "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.
- ⑪ INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3" CURB HEIGHT. REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

LEGEND

- THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.
- ⑤ 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%.
 - ⑥ 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%.
 - ⑦ LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PAR.
 - X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021

Jeff J. Perkins
JEFFREY PERKINS
OPERATIONS DIVISION



STANDARD PLAN 5-297.250

1 OF 6

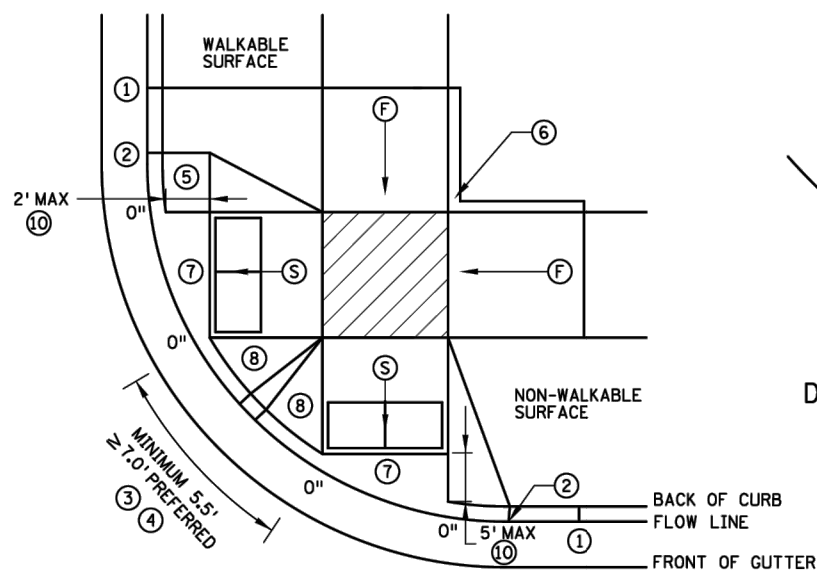
APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

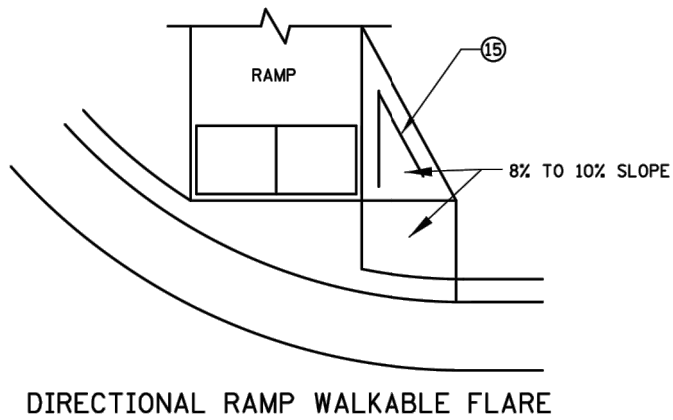
STATE PROJ. NO.

PEDESTRIAN CURB RAMP DETAILS

(TH) SHEET NO. 9 OF 23 SHEETS

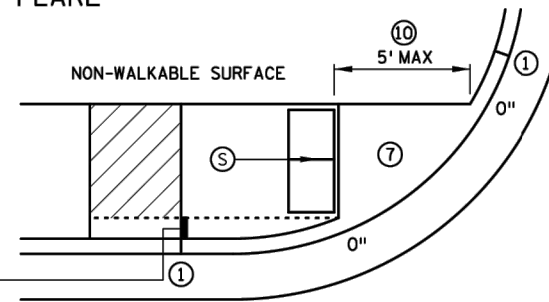


COMBINED DIRECTIONAL

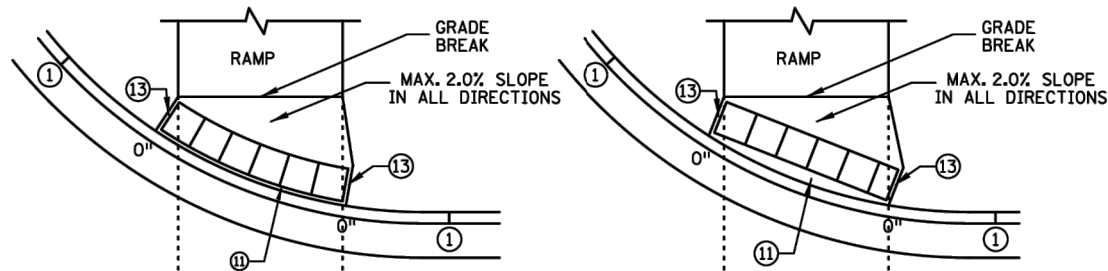


DIRECTIONAL RAMP WALKABLE FLARE

IF NON-CONCRETE BLVD. IS CONSTRUCTED AND IS LESS THAN 2' IN WIDTH AT TOP OF CURB TRANSITION, PAVE CONCRETE RAMP WIDTH TO ADJACENT BACK OF CURB.

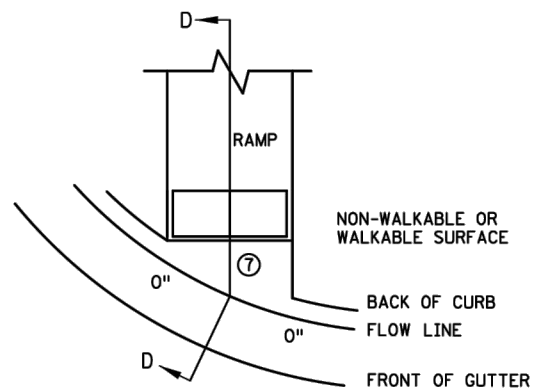


STANDARD ONE-WAY DIRECTIONAL ⑨

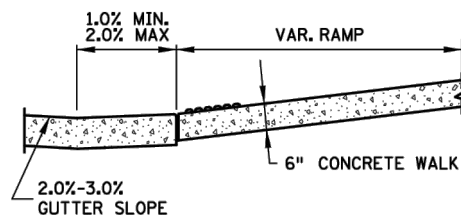


DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED ⑫

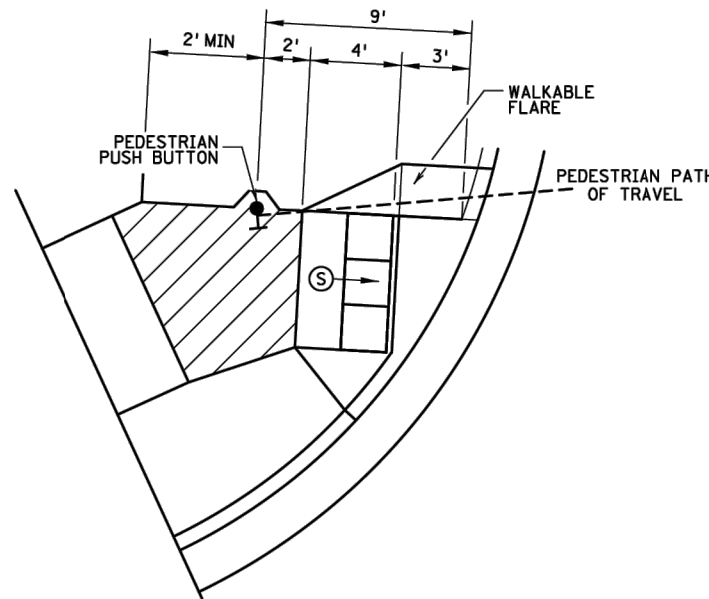
ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB



CURB FOR DIRECTIONAL RAMPS ⑭



SECTION D-D



SEMI-DIRECTIONAL RAMP ③④⑨

3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB PRIMARILY USED FOR APS APPLICATIONS WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK)

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) 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, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

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 WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOP GRADE BREAK OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY, FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROSECUTION OF WORK).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB. SEE NOTES ⑩ & ⑪ FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

- ① MATCH FULL CURB HEIGHT.
- ② 3" HIGH CURB WHEN USING A 3' LONG RAMP
4" HIGH CURB WHEN USING A 4' LONG RAMP.
- ③ 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).
- ④ THE "BUMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS. IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.
- ⑤ WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHALL BE USED. SEE THE DETAIL ON THIS SHEET.
- ⑥ GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
- ⑦ 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.
- ⑧ 8% TO 10% WALKABLE FLARE.
- ⑨ PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.
- ⑩ 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. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.
- ⑪ RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.
- ⑫ FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH. THIS ENSURES A DETECTABLE EDGE AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.
- ⑬ THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
- ⑭ TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.
- ⑮ PLACE 2 NO. 4 BARS 4 INCHES FROM SIDE OF FORMS WITH A MINIMUM 2 INCHES OF CONCRETE COVER ALONG EACH SIDE OF FLARE (INCIDENTAL).

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

⑤ 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%.

⑥ 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%.

⑦ LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PAR.

X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021

Jeff J. Perkins
JEFFREY PERKINS
OPERATIONS DIVISION



STANDARD PLAN 5-297.250

2 OF 6

APPROVED: 11-04-2021

REVISED:

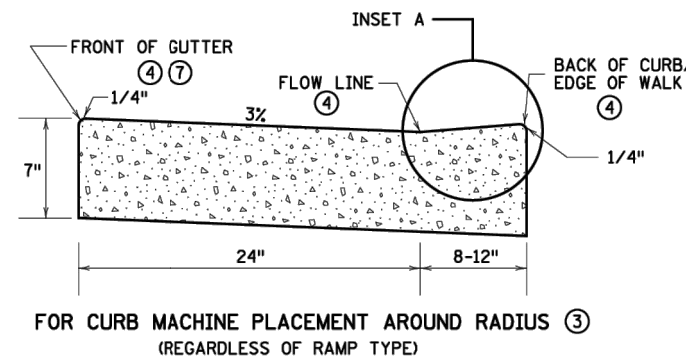
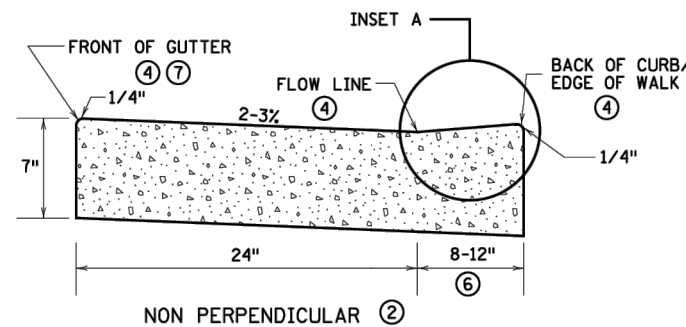
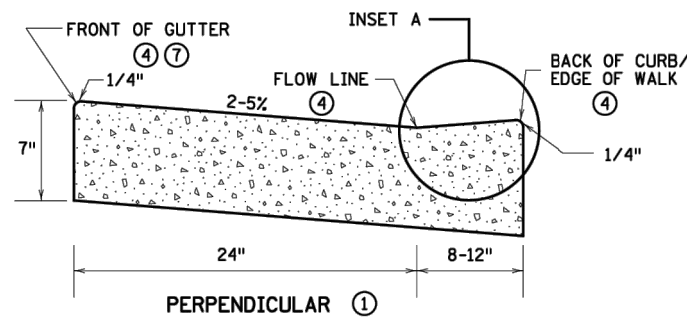
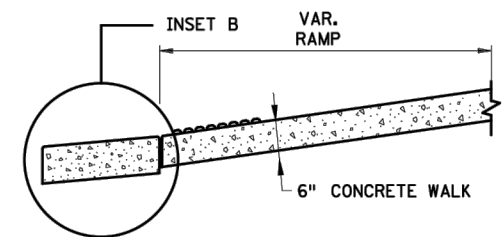
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THOMAS STYRICKI
STATE DESIGN ENGINEER

STATE PROJ. NO.

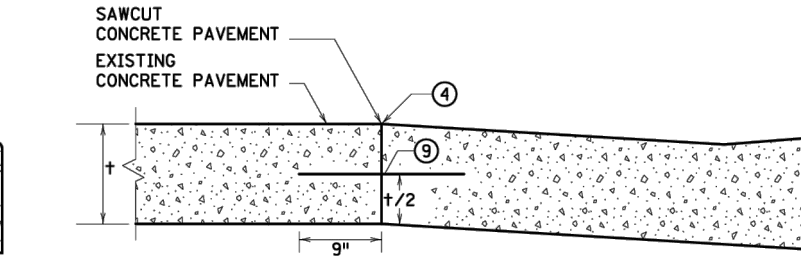
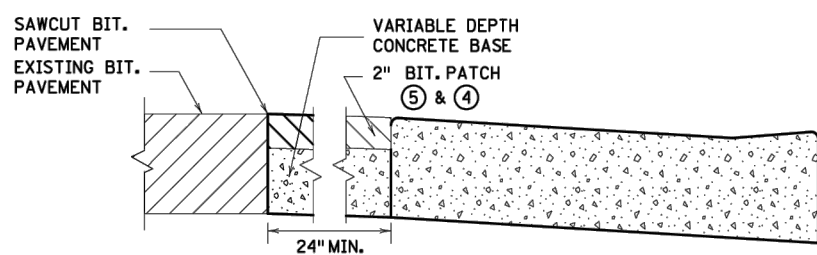
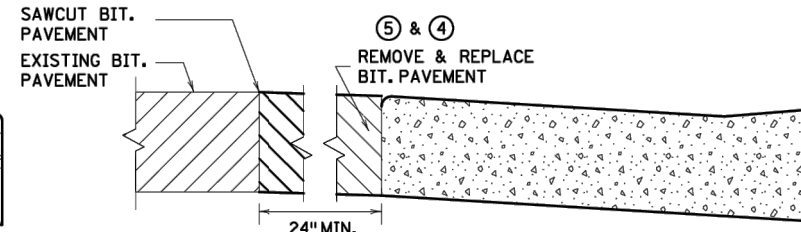
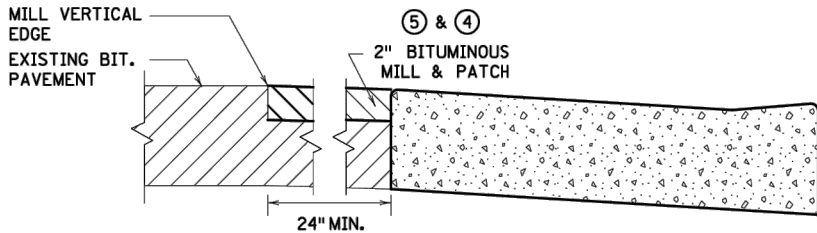
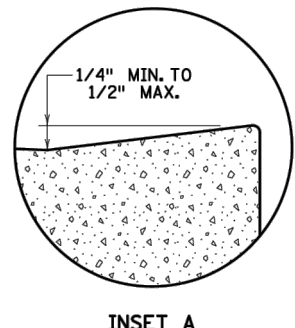
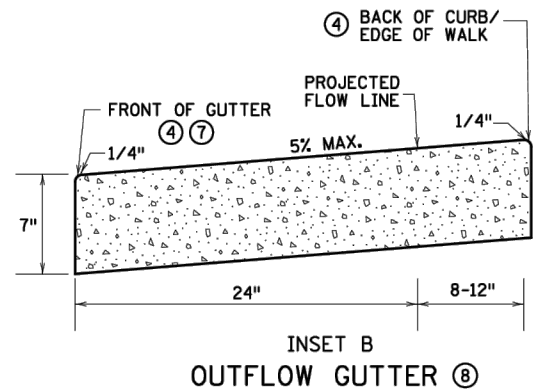
PEDESTRIAN CURB RAMP DETAILS

(T.H.)

SHEET NO. 10 OF 23 SHEETS

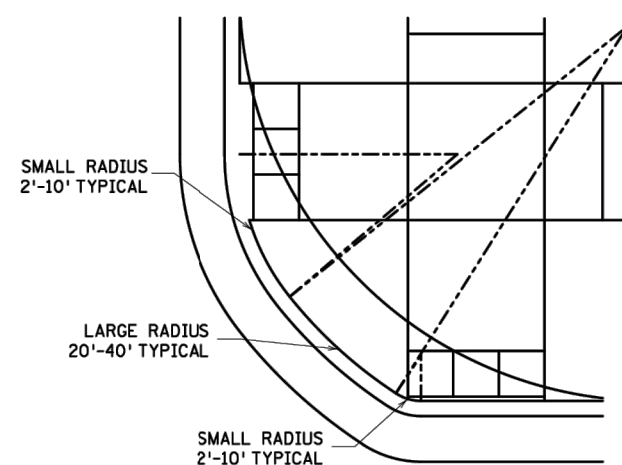
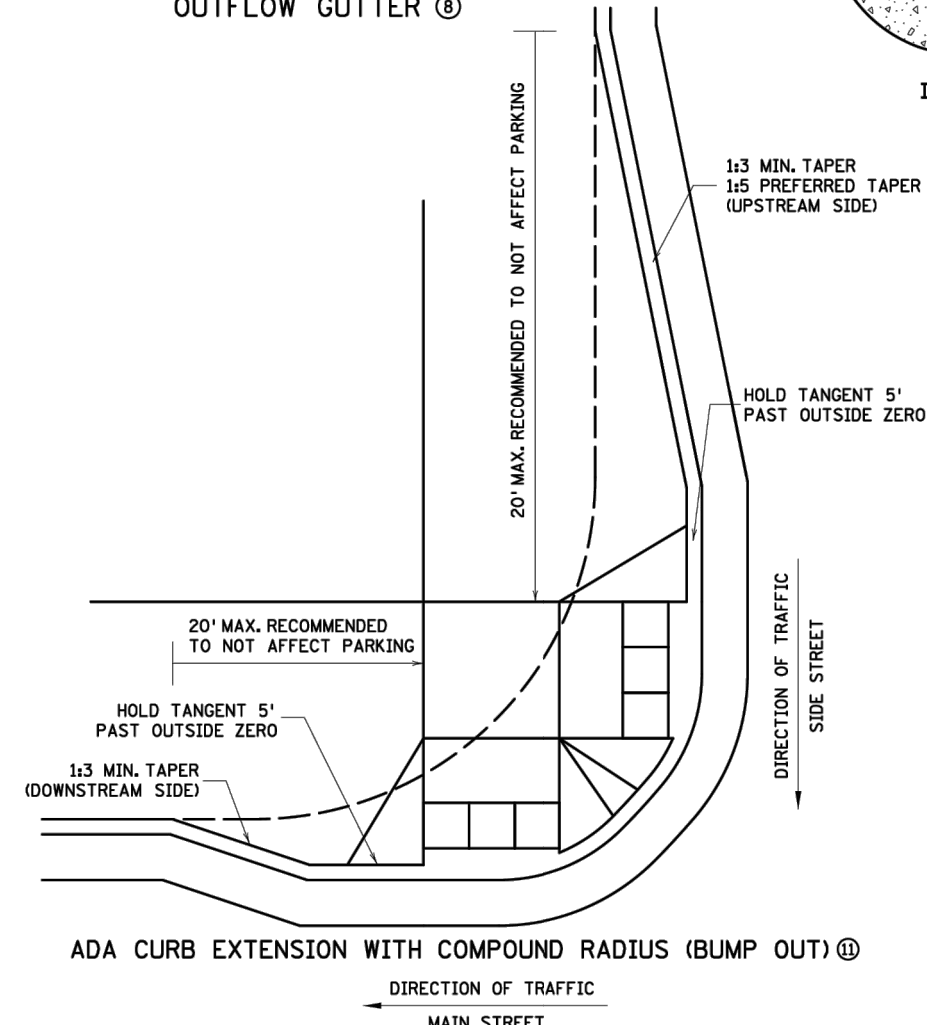


PEDESTRIAN ACCESS ROUTE CURB & GUTTER DETAIL



ONLY ALLOWED PER ENGINEER'S APPROVAL

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



COMBINED DIRECTIONAL (COMPOUND RADIUS)

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.
- 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.
- FOR USE AT CURB RAMP CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.
- BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMP.
- THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".
- 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.
- VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.
- TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.5" OF THE GUTTER FACE MUST BE A FORMED EDGE. PAR GUTTER SHALL NOT BE OVERLAID.
- SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.
- DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1' MINIMUM FROM ALL JOINTS.
- HELPS PROVIDE TWO SEPARATE RAMP, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.
- CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS AVAILABLE. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APS INTERSECTIONS WHERE SPACE IS LIMITED. PUSH BUTTONS MUST MEET APS CRITERIA AS DESCRIBED IN THE PUSH BUTTON LOCATION DETAIL SHEET.

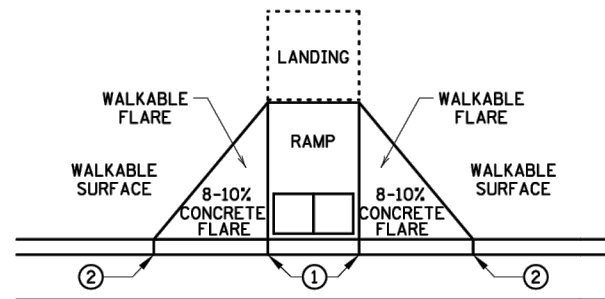
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APPROVED: 11-04-2021
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JEFFREY PERKINS
OPERATIONS DIVISION

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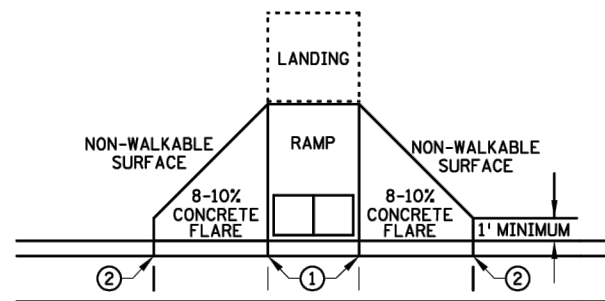
STANDARD PLAN 5-297.250
3 OF 6
APPROVED: 11-04-2021
REVISED:
STATE PROJ. NO.

PEDESTRIAN CURB RAMP DETAILS

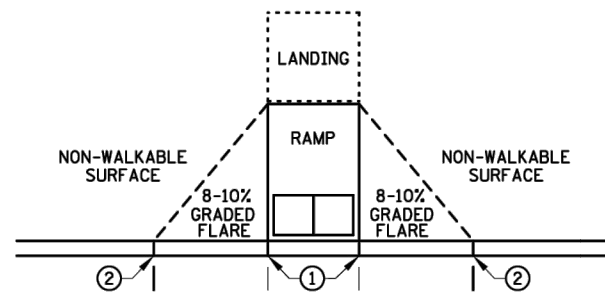
(TH) SHEET NO. 11 OF 23 SHEETS



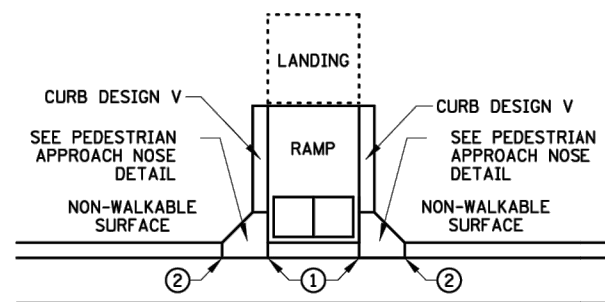
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

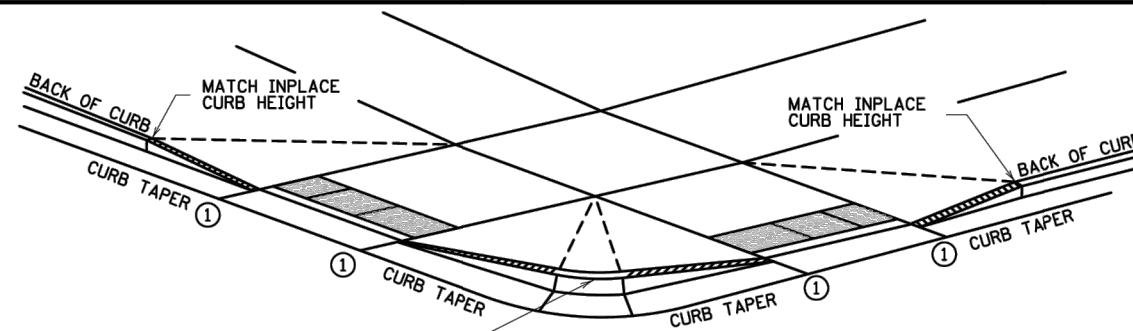


GRADED FLARES



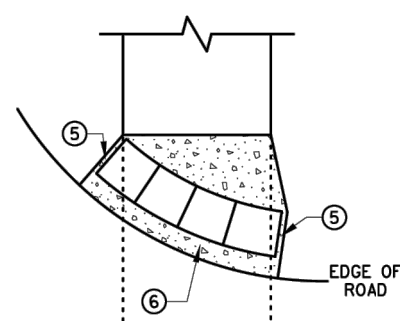
RETURNED CURB ④

TYPICAL SIDE TREATMENT OPTIONS ③ ⑩

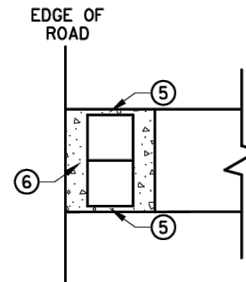


3" MINIMUM CURB HEIGHT, 4" PREFERRED
(MEASURED AT FRONT FACE OF CURB)
FOR A MIN. 6" LENGTH (MEASURED ALONG FLOW LINE)

DETECTABLE EDGE WITH ⑦
CURB AND GUTTER

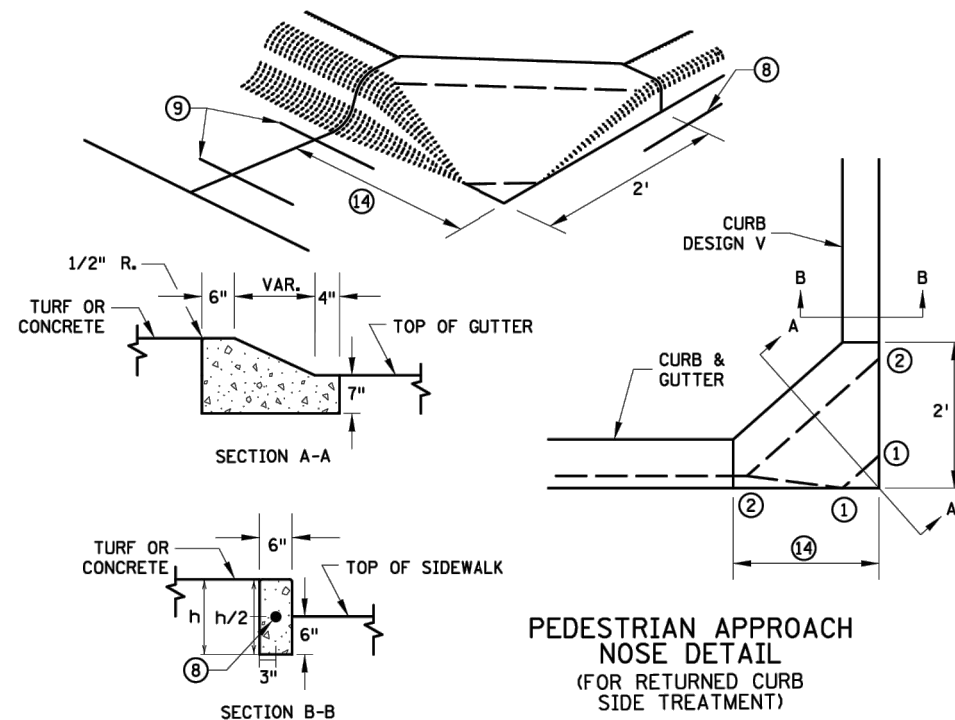


RADIAL DETECTABLE WARNING

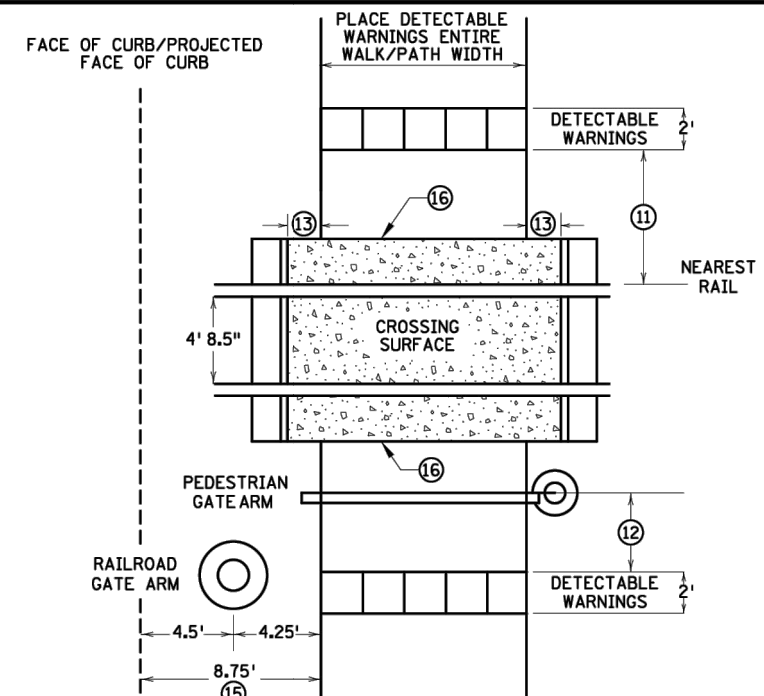


RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER



PEDESTRIAN APPROACH
NOSE DETAIL
(FOR RETURNED CURB
SIDE TREATMENT)



RAILROAD CROSSING
PLAN VIEW

NOTES:

- INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT. INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.
- SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.
- A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.
- 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. SEE INSET A ON SHEET 3 OF 6.
- ② FULL CURB HEIGHT.
- ③ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED 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.
- ④ TYPICALLY USED FOR MEDIANS AND ISLANDS.
- ⑤ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
- ⑥ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.
- ⑦ 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.
- ⑧ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.
- ⑨ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.
- ⑩ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6" LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE. CONSTRUCT THESE TAPERS AT 0"-3" AT 8-10%, THEN LESS THAN 5% FROM 3" CURB TO FULL CURB HEIGHT.
- ⑪ 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.
- ⑫ 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. THIS CRITERIA GOVERNS OVER NOTE ⑪.
- ⑬ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.
- ⑭ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.
- ⑮ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.
- ⑯ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

REVISION:
APPROVED: 11-04-2021
Jeff J. Perkins
JEFFREY PERKINS
OPERATIONS DIVISION

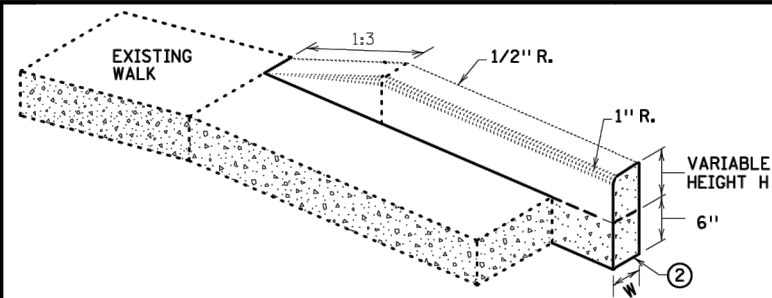
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MINNESOTA
DEPARTMENT
OF
TRANSPORTATION

STANDARD PLAN 5-297.250 4 OF 6
APPROVED: 11-04-2021
REVISED:
Tom Styrzbecker
THOMAS STYRZBECKER
STATE DESIGN ENGINEER

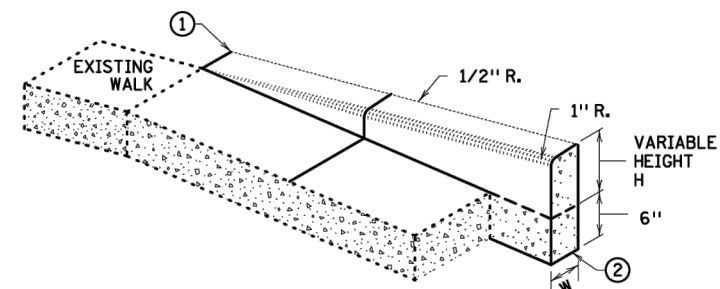
STATE PROJ. NO.

PEDESTRIAN CURB RAMP DETAILS

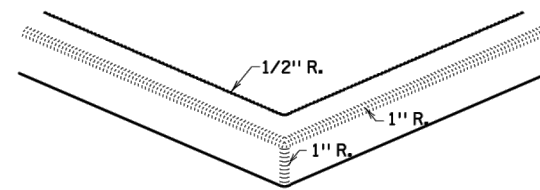
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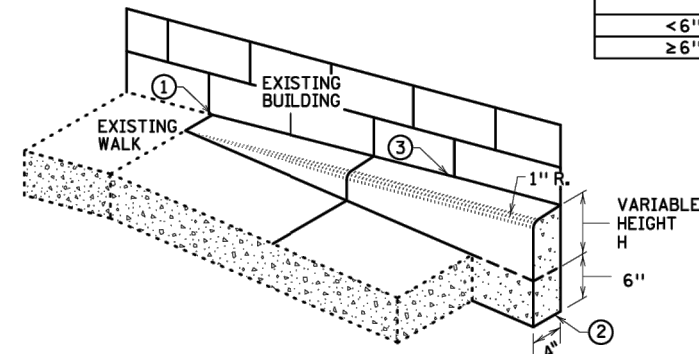
V CURB ADJACENT TO LANDSCAPE
CURB WITHIN SIDEWALK LIMITS



V CURB ADJACENT TO LANDSCAPE
CURB OUTSIDE SIDEWALK LIMITS

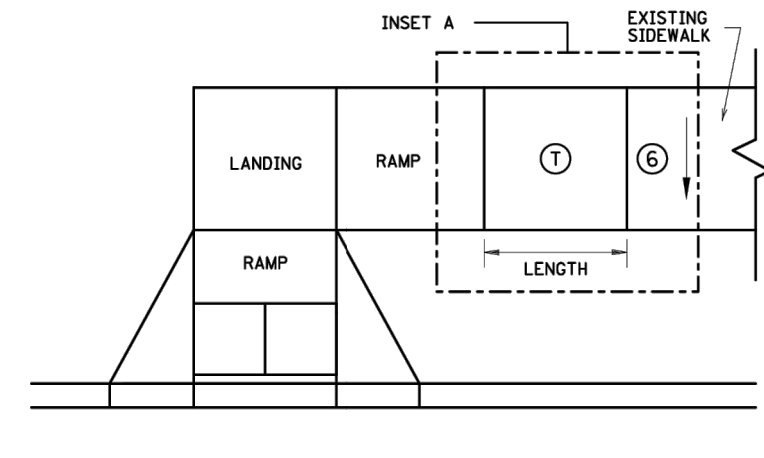


V CURB INTERSECTION

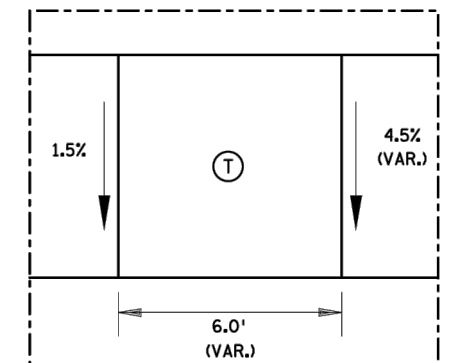


V CURB ADJACENT TO BUILDING
OR BARRIER

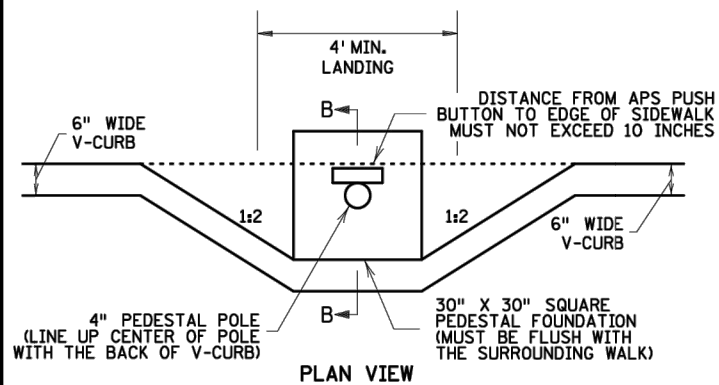
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
< 6"	4"
≥ 6"	6"



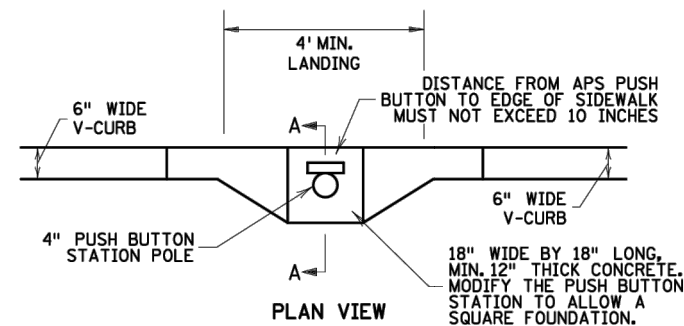
TRANSITION PANEL ④ ⑤



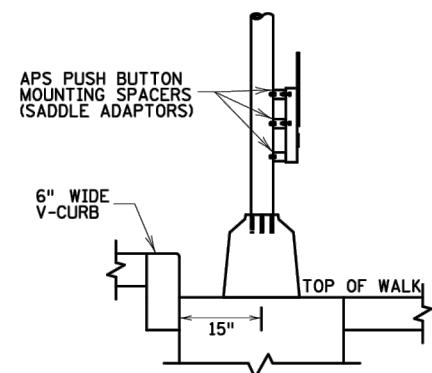
INSET A



PLAN VIEW

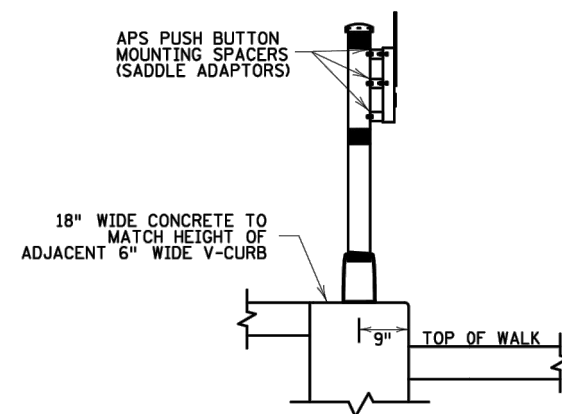


PLAN VIEW



SECTION B-B

SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



SECTION A-A

PUSH BUTTON STATION (V-CURB)

NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

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 ADJACENT 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 CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE A MINIMUM 1/2" TOP GAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.
- ④ THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.
- ⑤ TRANSITION PANEL(S) ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).
- ⑥ EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

- ⑤ 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%.
- ④ LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
- ① TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1' LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

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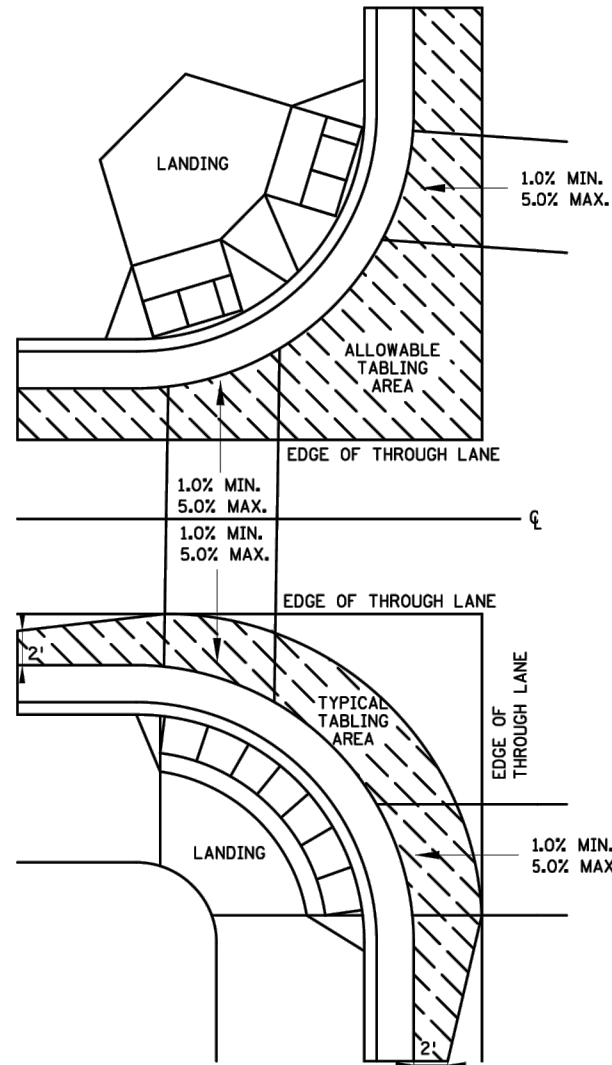
5 OF 6

APPROVED: 11-04-2021
REVISOR:
Tom Styrbacki
THOMAS STYRBICKI
STATE DESIGN ENGINEER

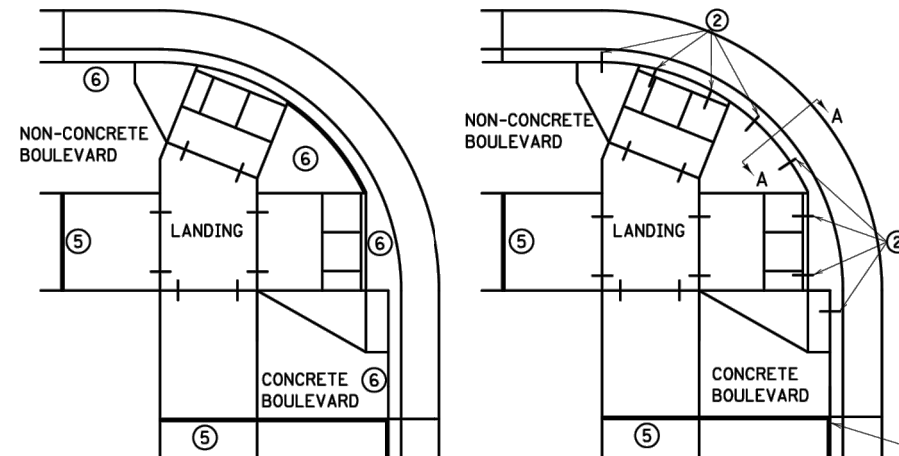
STATE PROJ. NO.

PEDESTRIAN CURB RAMP DETAILS

(TH) SHEET NO. 13 OF 23 SHEETS

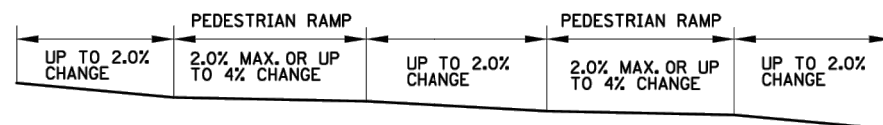


CURB LINE AND ROAD CROSSING ADJUSTMENTS

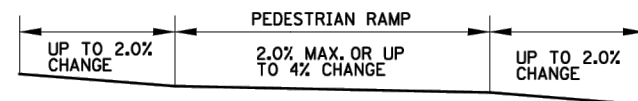


EXPANSION MATERIAL PLACEMENT FOR CONCRETE ROADWAYS

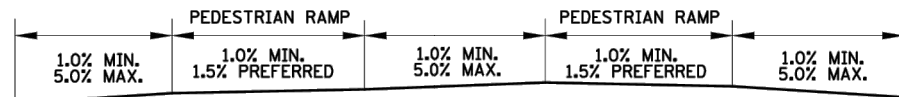
CURB LINE REINFORCEMENT ④ PLACEMENT ON BITUMINOUS ROADWAYS



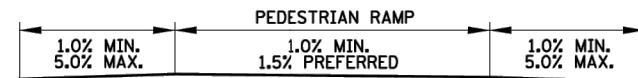
FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS



FLOW LINE PROFILE "TABLE" - FAN



FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS



FLOW LINE PROFILE RAISE - FAN

GENERAL NOTES:

"TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK, IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.

RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS "TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.

MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:

- 1) 1.0% MIN. CROSS-SLOPE OF THE ROAD
- 2) 5.0% MAX. CROSS-SLOPE OF THE ROAD
- 3) "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
- 4) UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP

STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.

RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:

- 1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
- 2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
- 3) 5.0% RECOMMENDED MAX. FLOW LINE
- 4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

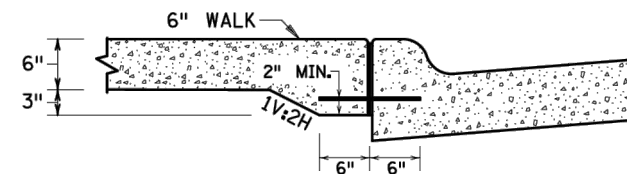
REVISION:
APPROVED: 11-04-2021
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JEFFREY PERKINS
OPERATIONS DIVISION



STANDARD PLAN 5-297.250 6 OF 6
APPROVED: 11-04-2021
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STATE PROJ. NO. (TH) SHEET NO. 14 OF 23 SHEETS

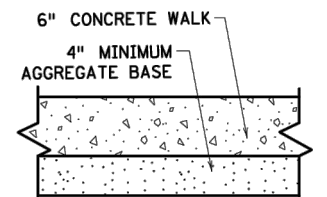
NOTES:

- ① TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.
- ② DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) AT 36" MAXIMUM CENTER TO CENTER MINIMUM 12" SPACING FROM CONSTRUCTION JOINTS. BARS TO BE ADJUSTED TO MATCH RAMP GRADE. BARS TO BE PAID BY EACH.
- ③ DRILL AND GROUT 2 - NO. 4 X 12" LONG (6" EMBEDDED) REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS. BARS TO BE PAID BY EACH.
- ④ THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS, SEE NOTE 6.
- ⑤ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.
- ⑥ USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

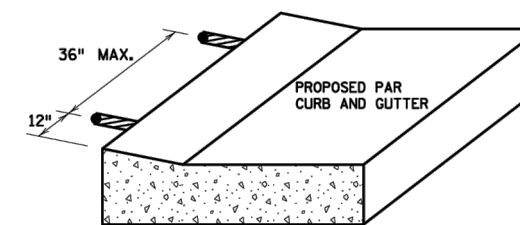


SECTION VIEW A-A THICKENED SECTION THROUGH CURB RAMP FLARES

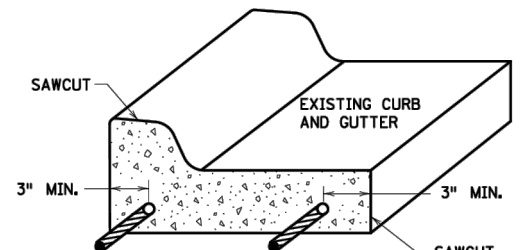
END SILL CURB AT TOP OF CURB RAMP AND DRIVEWAY FLARES.



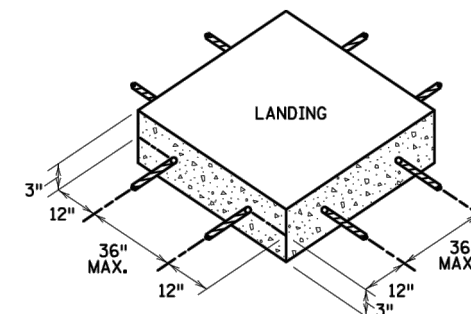
TYPICAL SIDEWALK SECTION WITHIN INTERSECTION CORNER



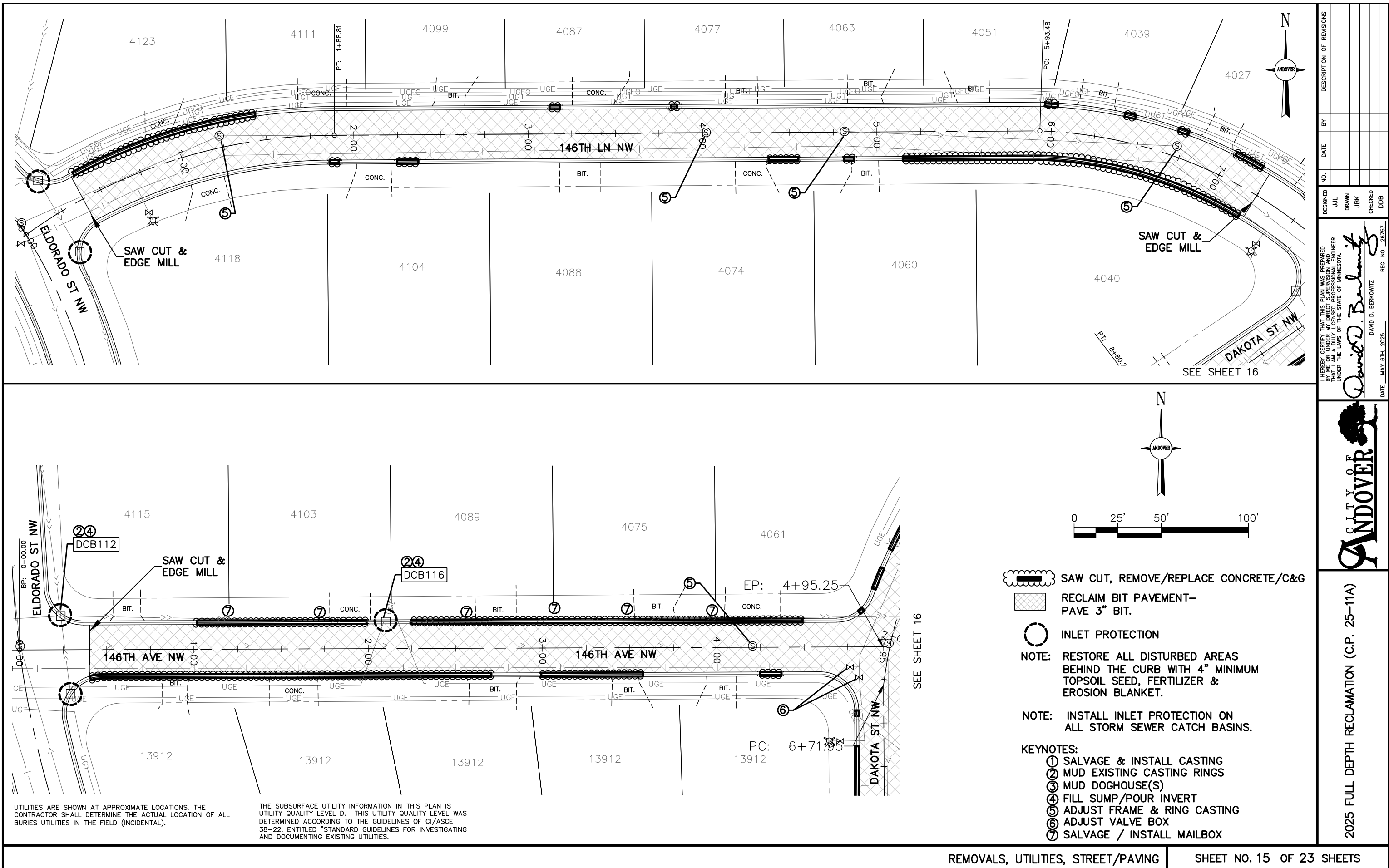
CURB RAMP REINFORCEMENT DETAILS ② ④



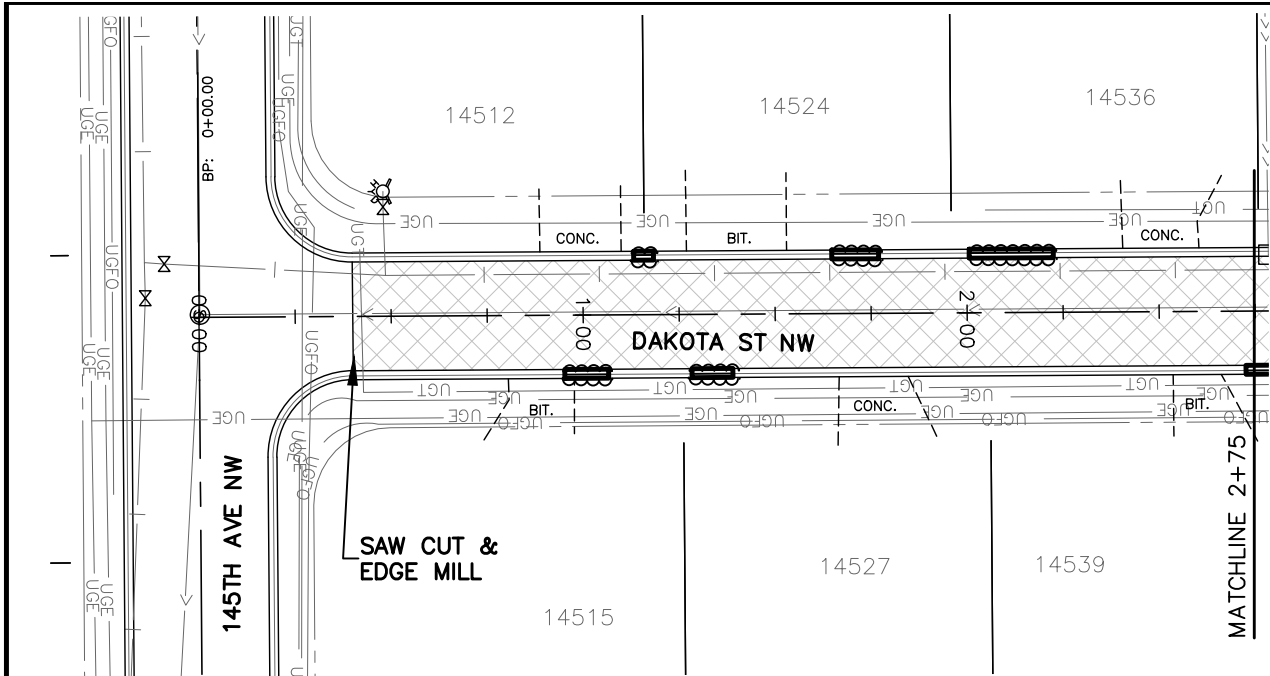
CURB AND GUTTER REINFORCEMENT ③





SEPARATE LANDING POUR REINFORCEMENT ① ②



SHEETS		2025 FULL DEPTH RECLAMATION (C.P. 25-11A)		<div>CITY OF ANDOVER</div> <div></div>		<div>I HEREBY CERTIFY THAT THIS PLAN 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.</div> <div> DAVID D. BERKOWITZ</div> <div>DATE <u>MAY 6TH, 2025</u> REG. NO. <u>26757</u></div>		DESIGNED JUL DRAWN JBK CHECKED DDB		NO.		DATE		BY		DESCRIPTION OF REVISIONS	



 SAW CUT, REMOVE/REPLACE CONCRETE/C&G

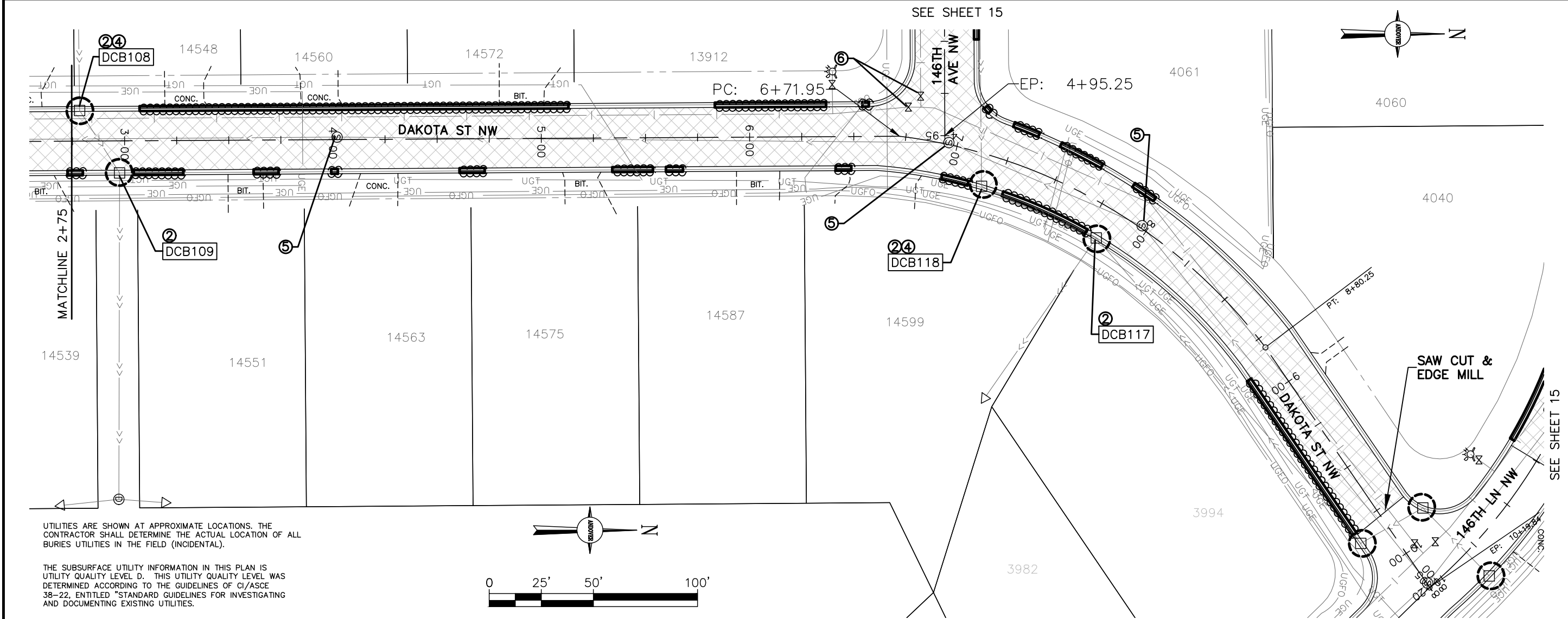
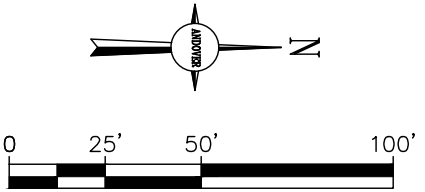
 RECLAIM BIT PAVEMENT—
PAVE 3" BIT.

 INLET PROTECTION

NOTE: RESTORE ALL DISTURBED AREAS
BEHIND THE CURB WITH 4" MINIMUM
TOPSOIL SEED, FERTILIZER &
EROSION BLANKET.

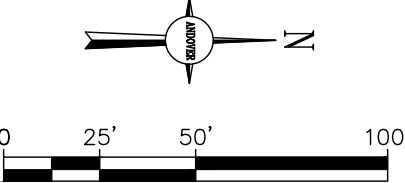
NOTE: INSTALL INLET PROTECTION ON
ALL STORM SEWER CATCH BASINS.

- KEYNOTES:
- ① SALVAGE & INSTALL CASTING
 - ② MUD EXISTING CASTING RINGS
 - ③ MUD DOGHOUSE(S)
 - ④ FILL SUMP/POUR INVERT
 - ⑤ ADJUST FRAME & RING CASTING
 - ⑥ ADJUST VALVE BOX
 - ⑦ SALVAGE / INSTALL MAILBOX



UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS. THE
CONTRACTOR SHALL DETERMINE THE ACTUAL LOCATION OF ALL
BURIED UTILITIES IN THE FIELD (INCIDENTAL).

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
38-22, ENTITLED "STANDARD GUIDELINES FOR INVESTIGATING
AND DOCUMENTING EXISTING UTILITIES."



DESCRIPTION OF REVISIONS		
NO.	DATE	BY



DESIGNED	DRAWN	CHECKED	DOB
JUL	JBK		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED
BY ME OR UNDER MY DIRECT SUPERVISION AND AS AN
ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

David D. Berkmowitz
DAVID D. BERKMOWITZ
REG. NO. 26757
DATE MAY 6TH, 2023

CITY OF ANDOVER

2025 FULL DEPTH RECLAMATION (C.P. 25-11A)

-  SAW CUT, REMOVE/REPLACE CONCRETE/C&G
-  RECLAIM BIT PAVEMENT—
PAVE 3" BIT.

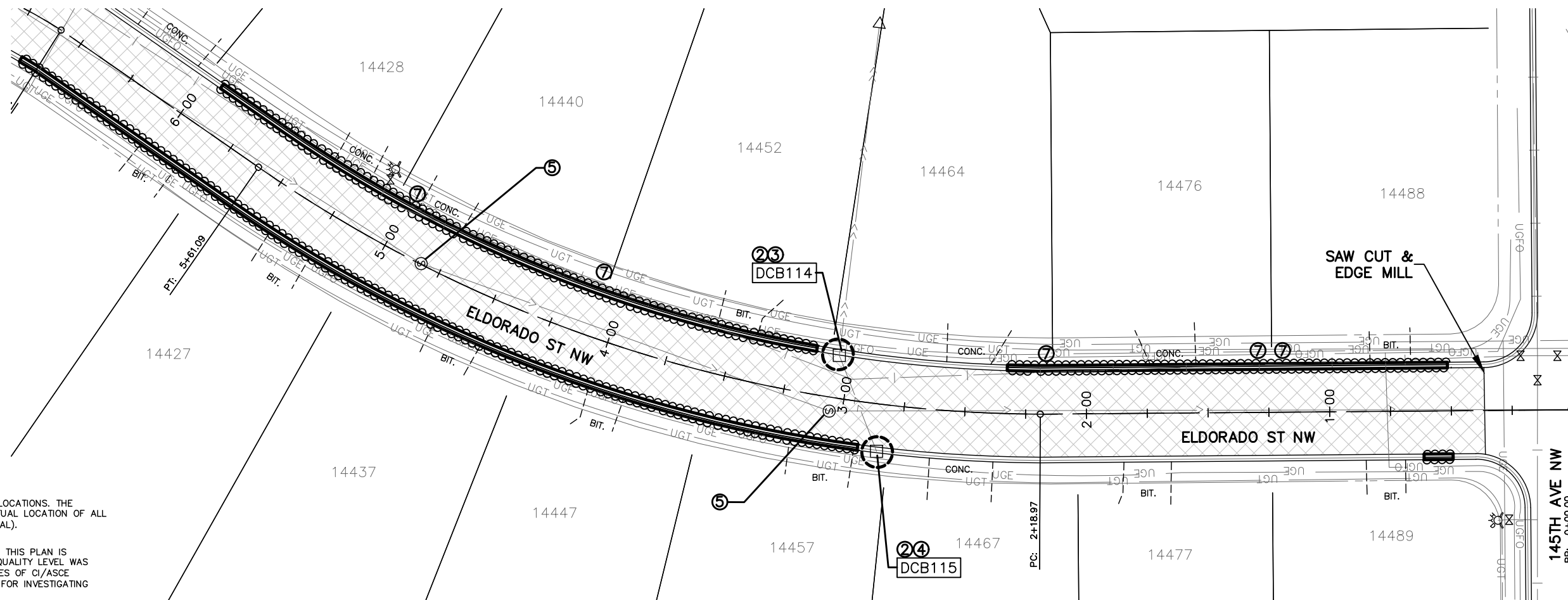
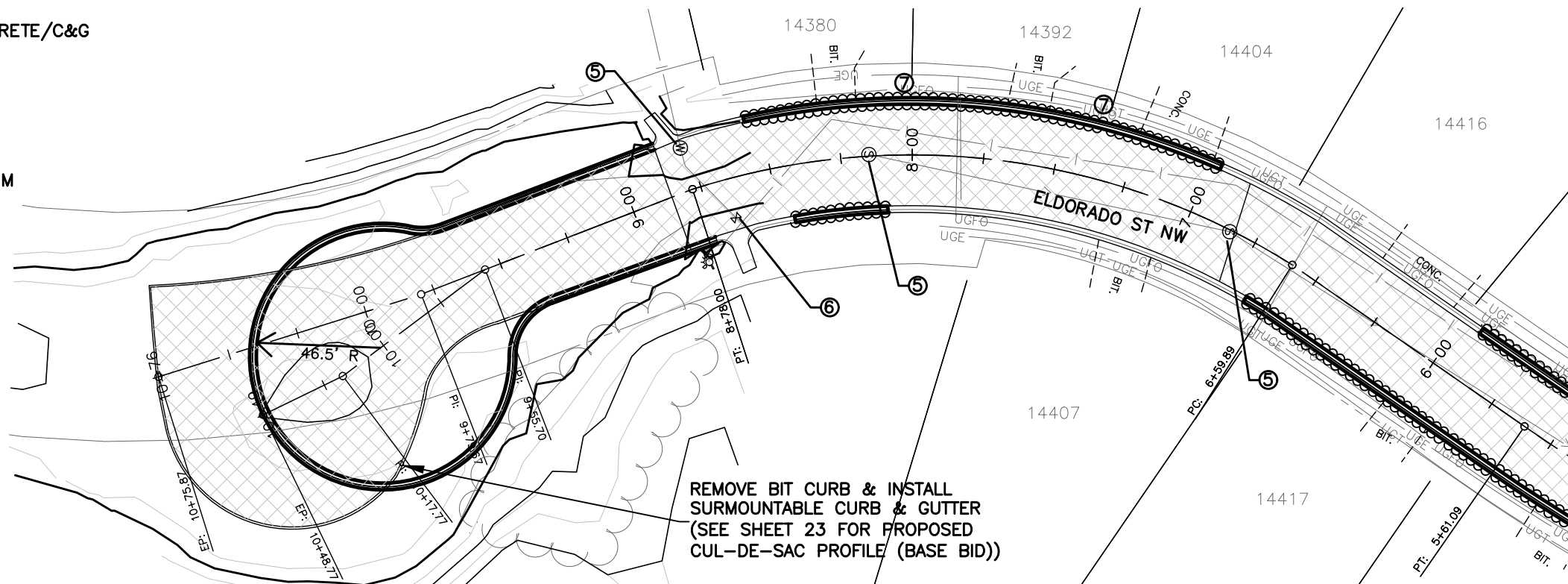
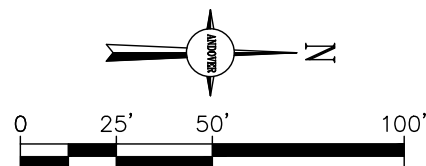
 INLET PROTECTION

NOTE: RESTORE ALL DISTURBED AREAS
BEHIND THE CURB WITH 4" MINIMUM
TOPSOIL SEED, FERTILIZER &
EROSION BLANKET.

NOTE: INSTALL INLET PROTECTION ON
ALL STORM SEWER CATCH BASINS.

KEYNOTES:

- ① SALVAGE & INSTALL CASTING
- ② MUD EXISTING CASTING RINGS
- ③ MUD DOGHOUSE(S)
- ④ FILL SUMP/POUR INVERT
- ⑤ ADJUST FRAME & RING CASTING
- ⑥ ADJUST VALVE BOX
- ⑦ SALVAGE / INSTALL MAILBOX



UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS. THE
CONTRACTOR SHALL DETERMINE THE ACTUAL LOCATION OF ALL
BURIED UTILITIES IN THE FIELD (INCIDENTAL).

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS
UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS
DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE
38-22, ENTITLED "STANDARD GUIDELINES FOR INVESTIGATING
AND DOCUMENTING EXISTING UTILITIES."

NO.	DATE	BY	DESCRIPTION OF REVISIONS
DESIGNED	JUL		
DRAWN	JBK		
CHECKED			
DOB			


I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED
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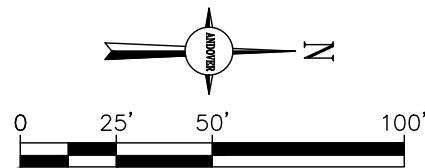
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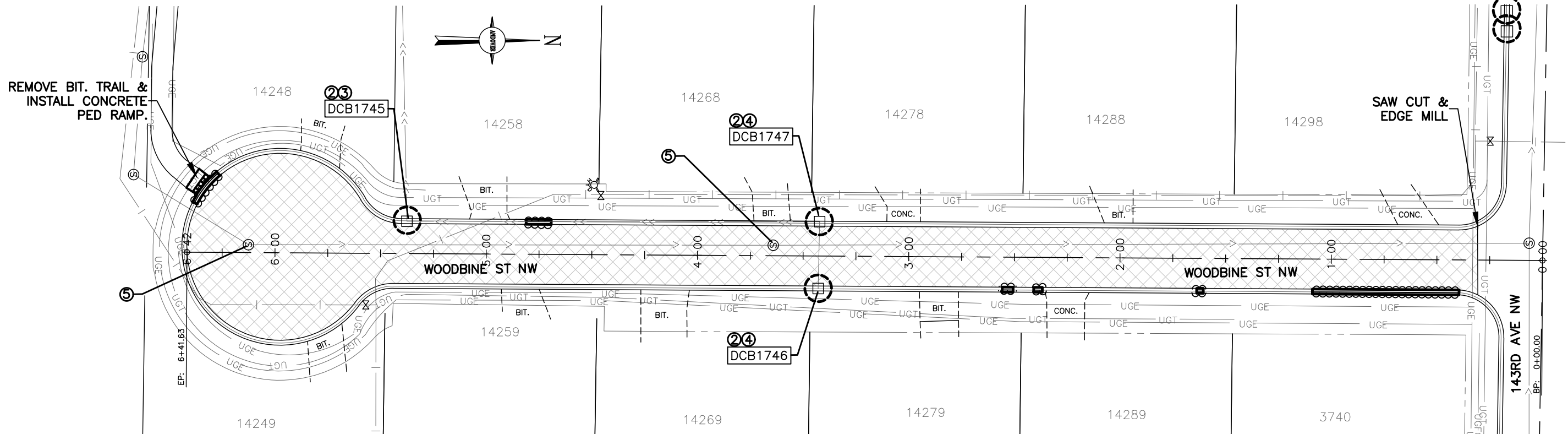
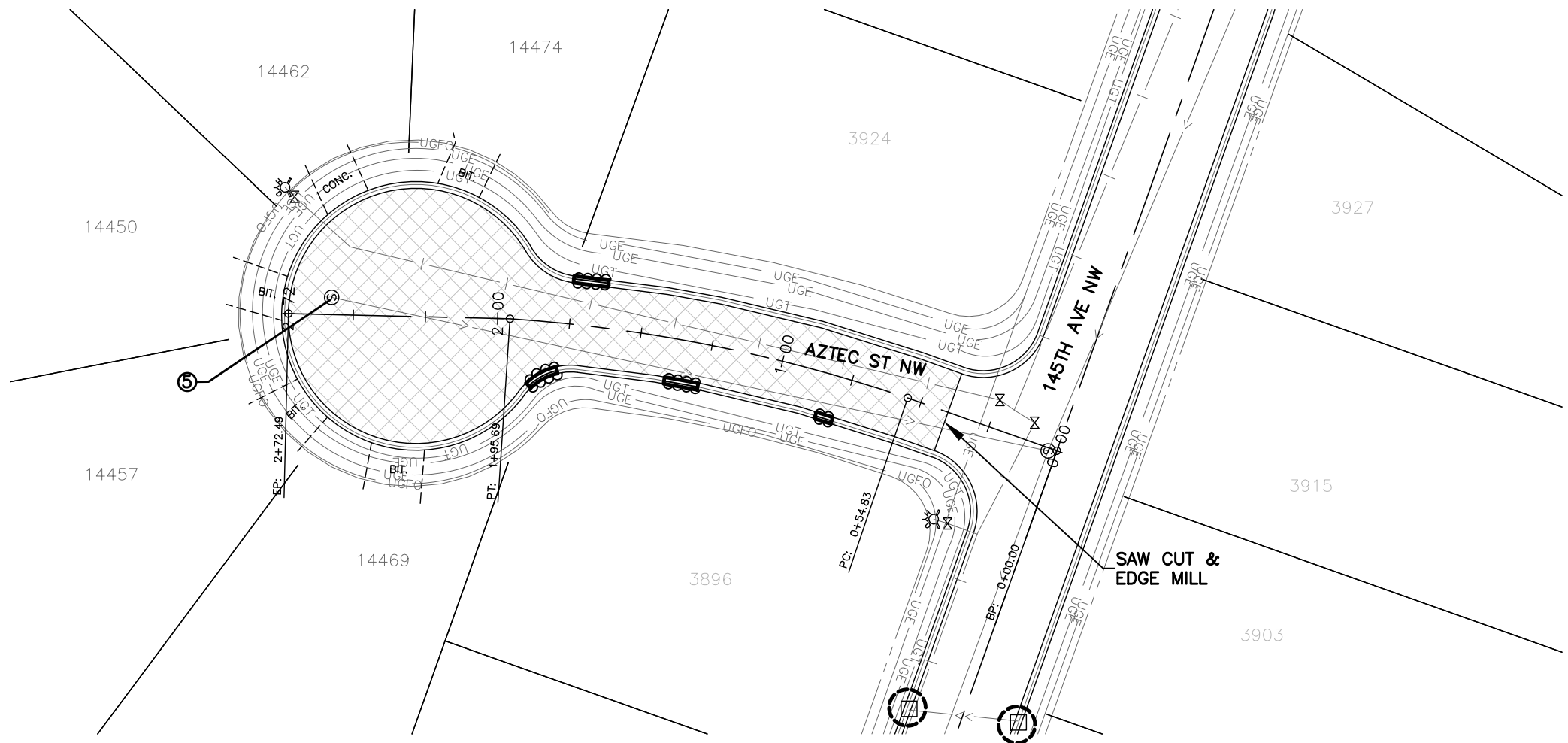
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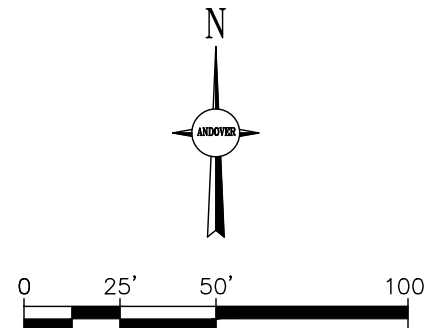
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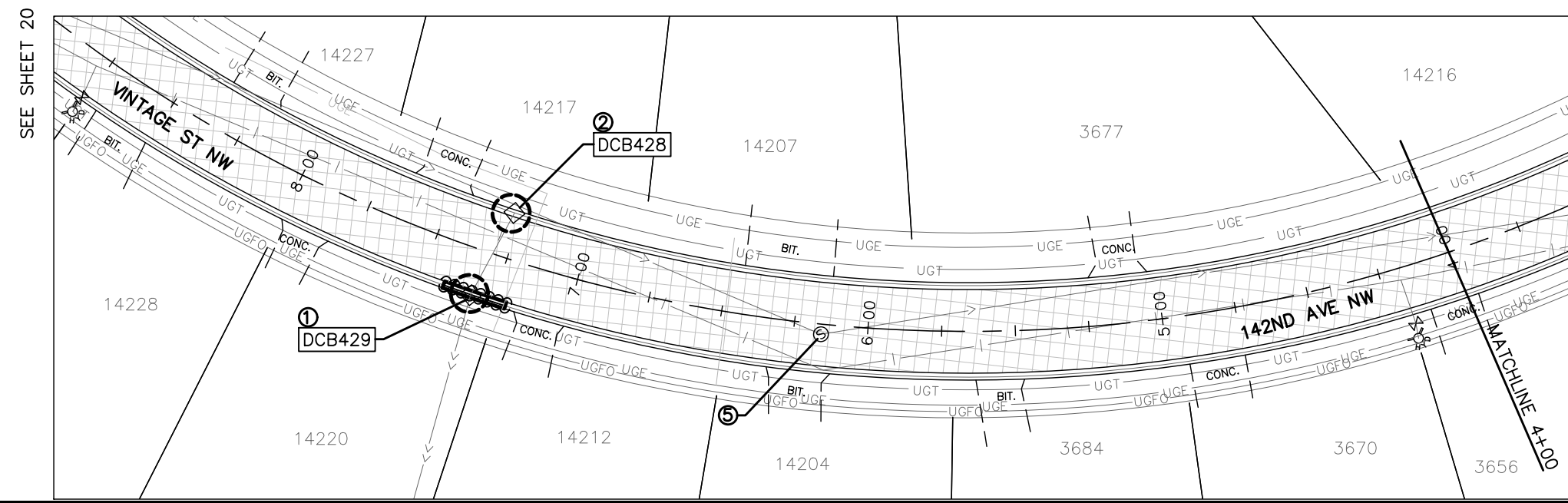
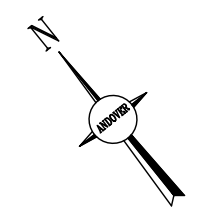
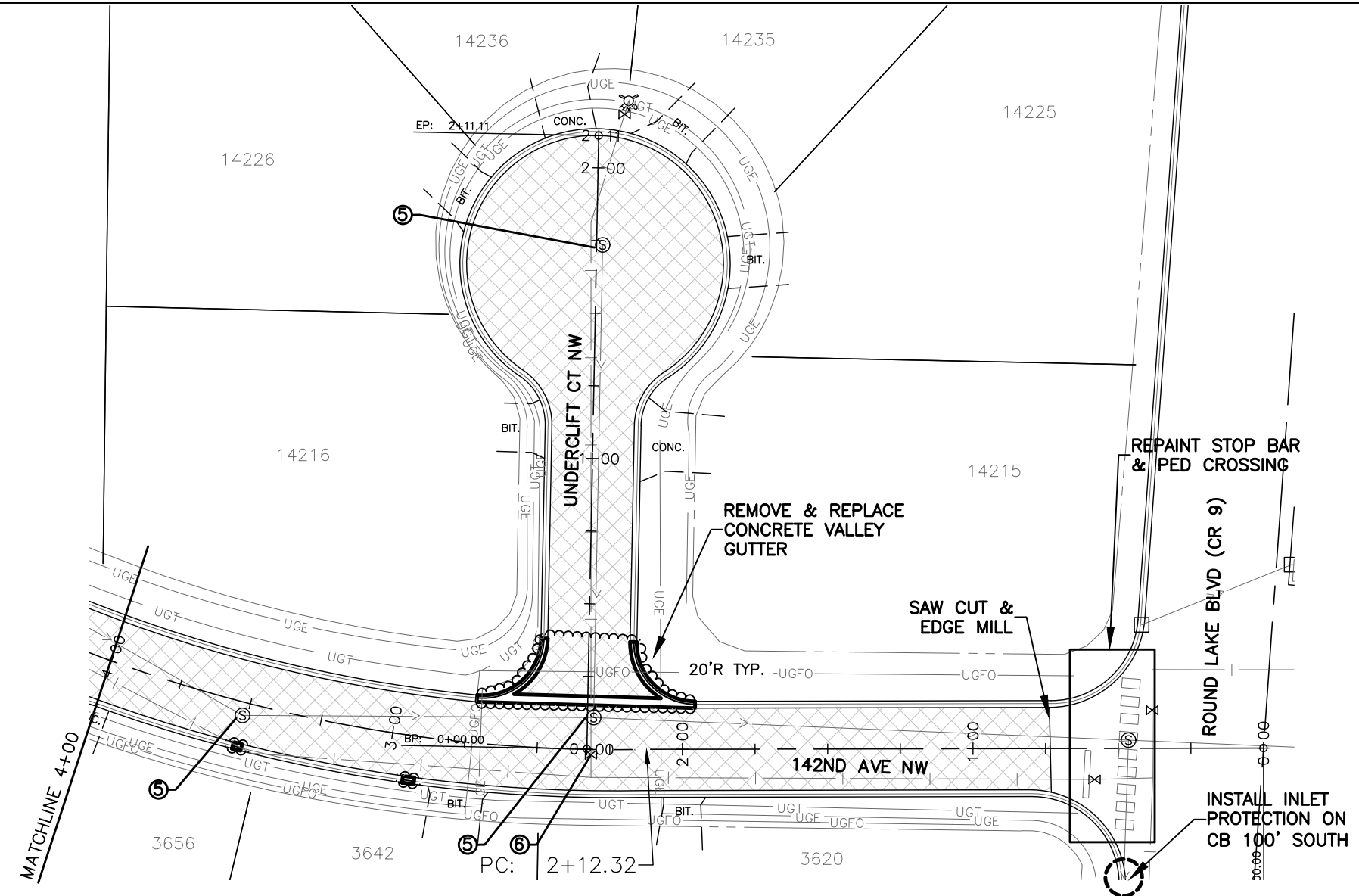
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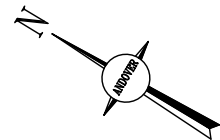
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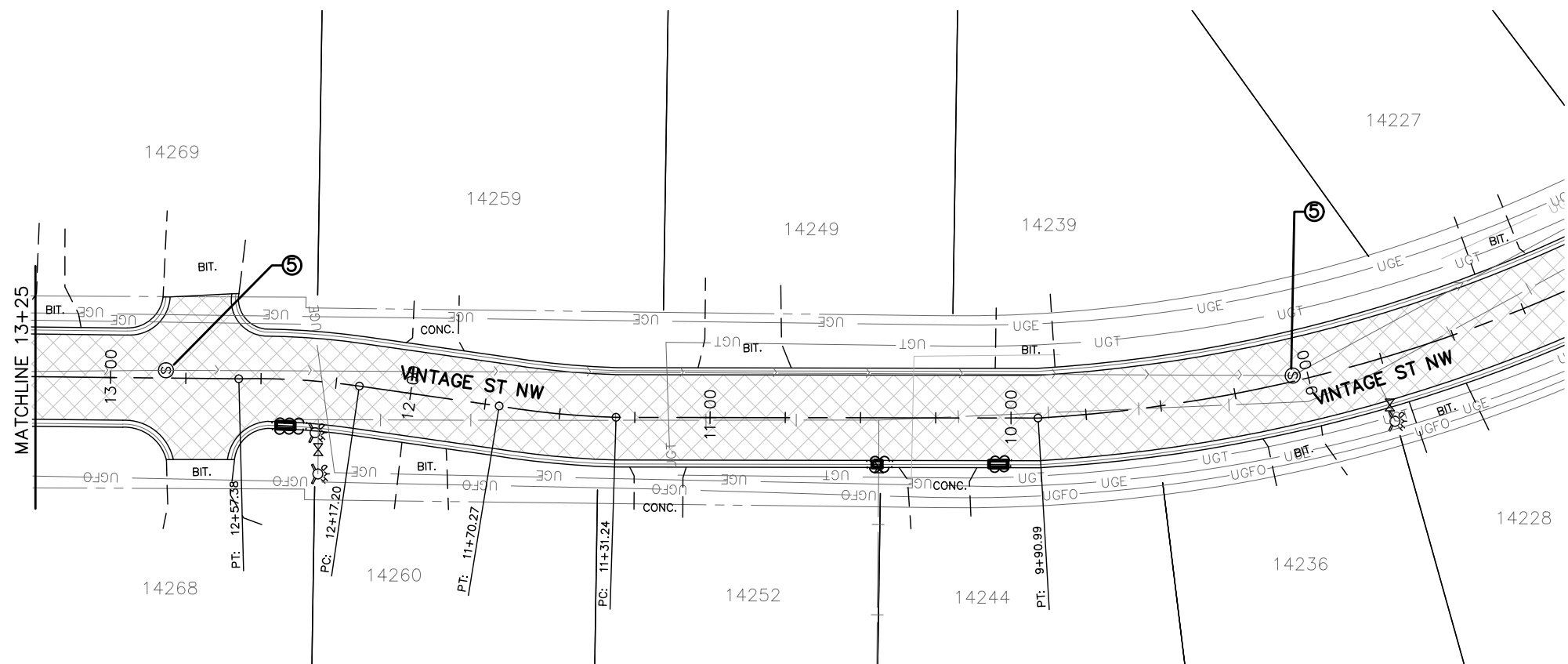
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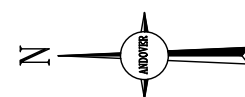
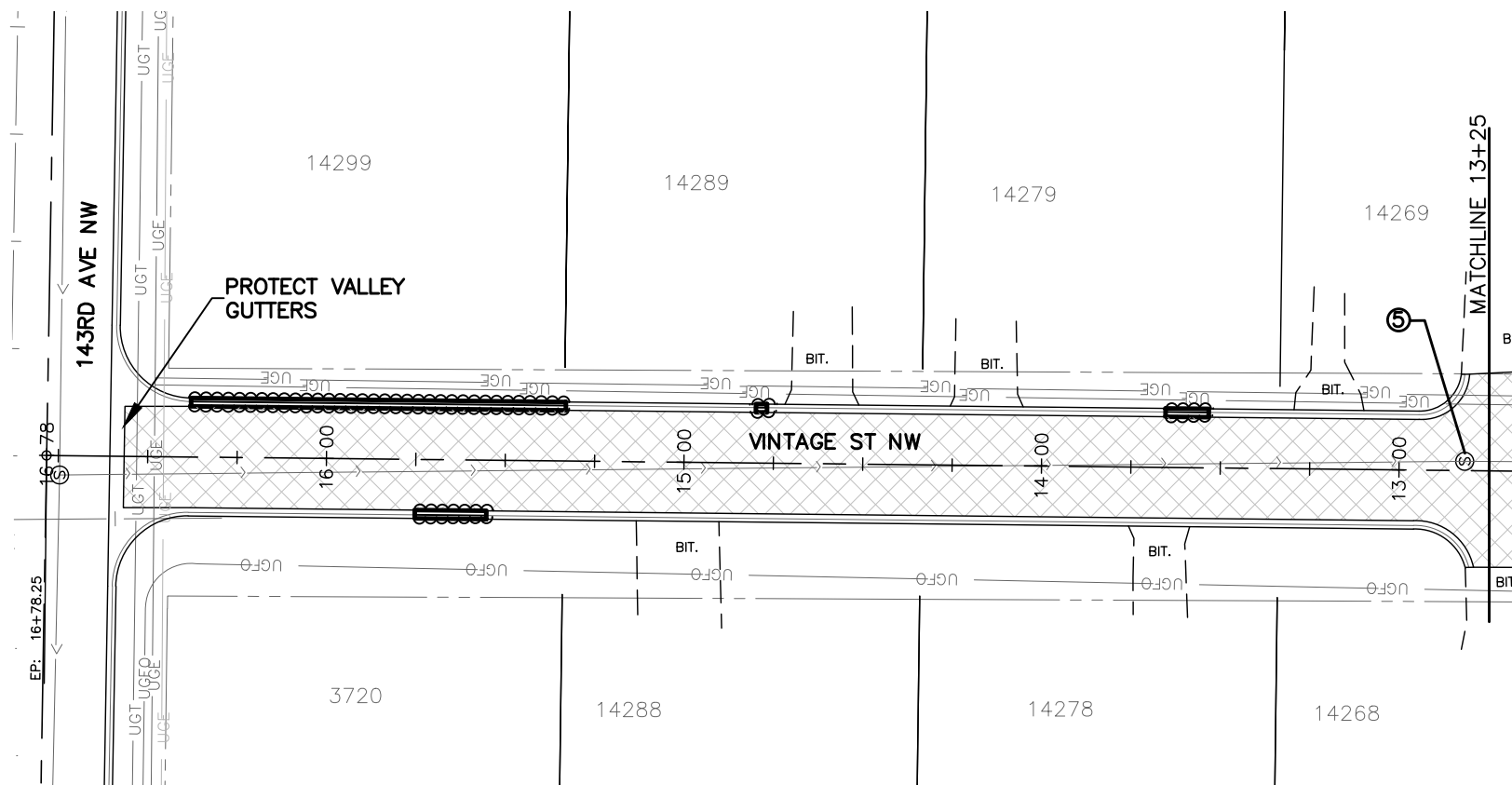


SEE SHEET 19

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JBK					
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DOB					

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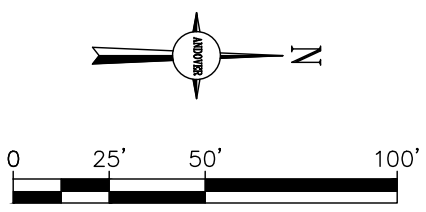
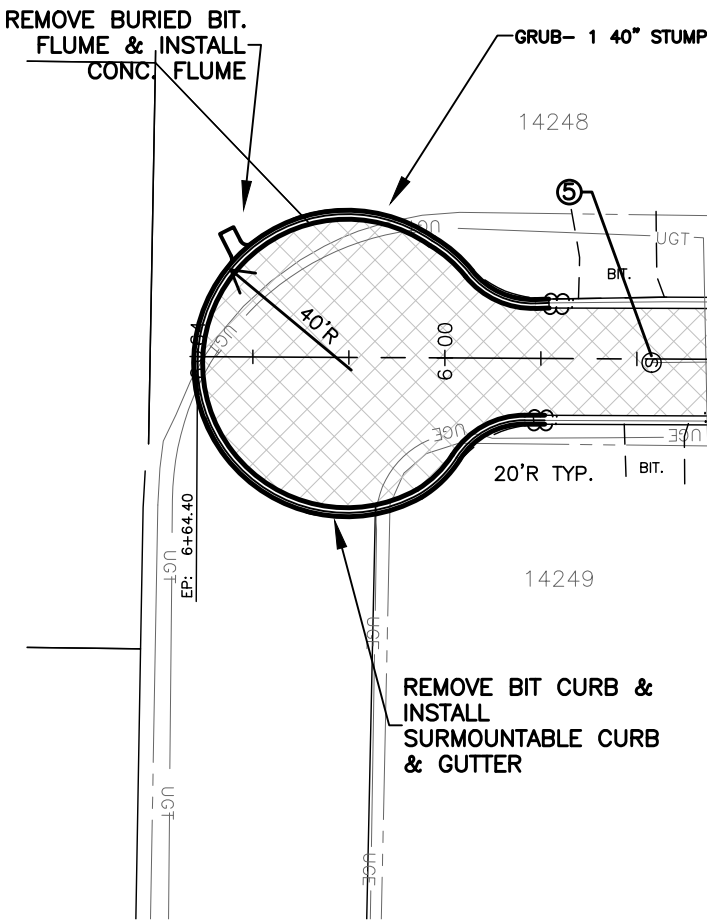


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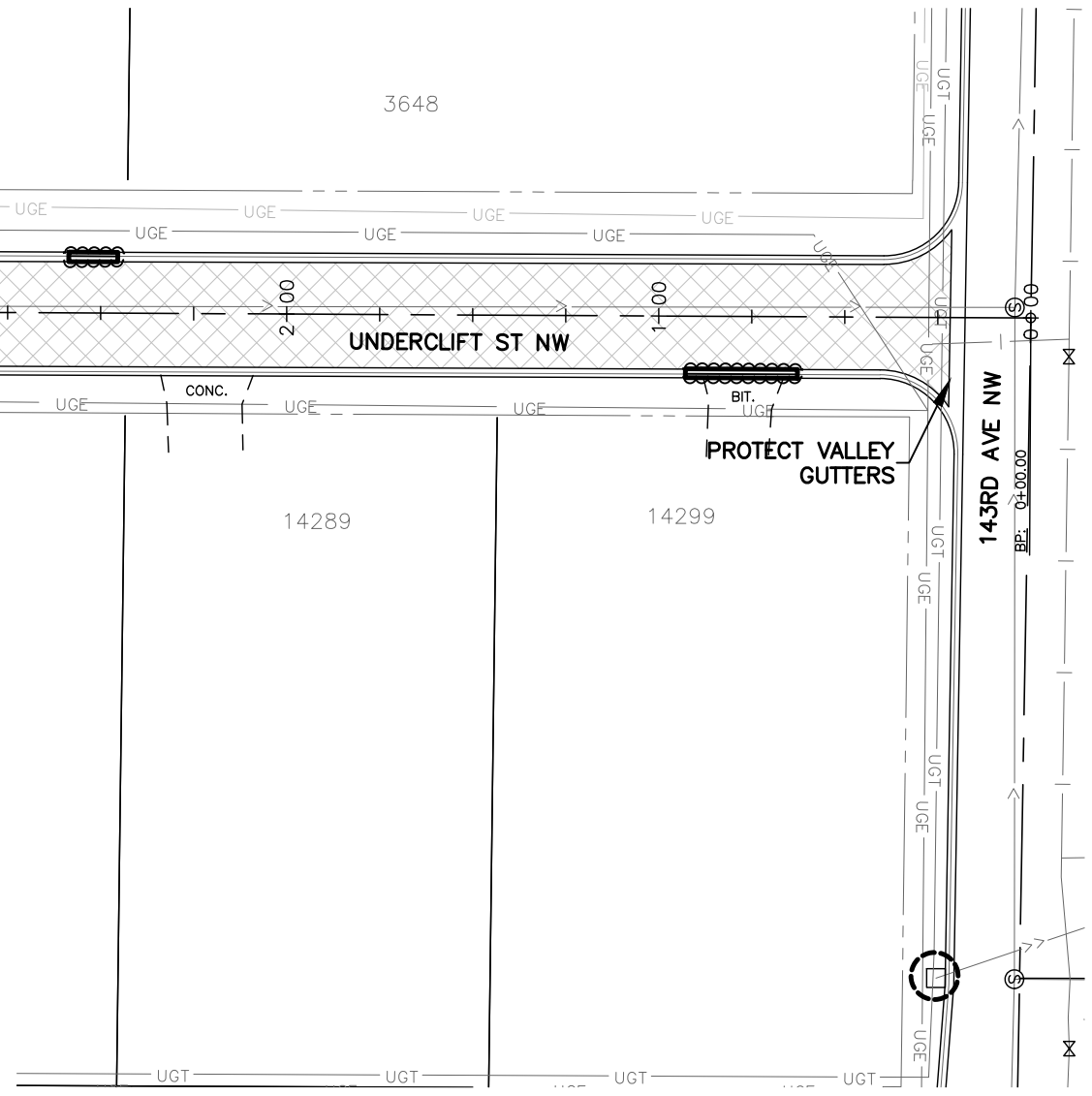
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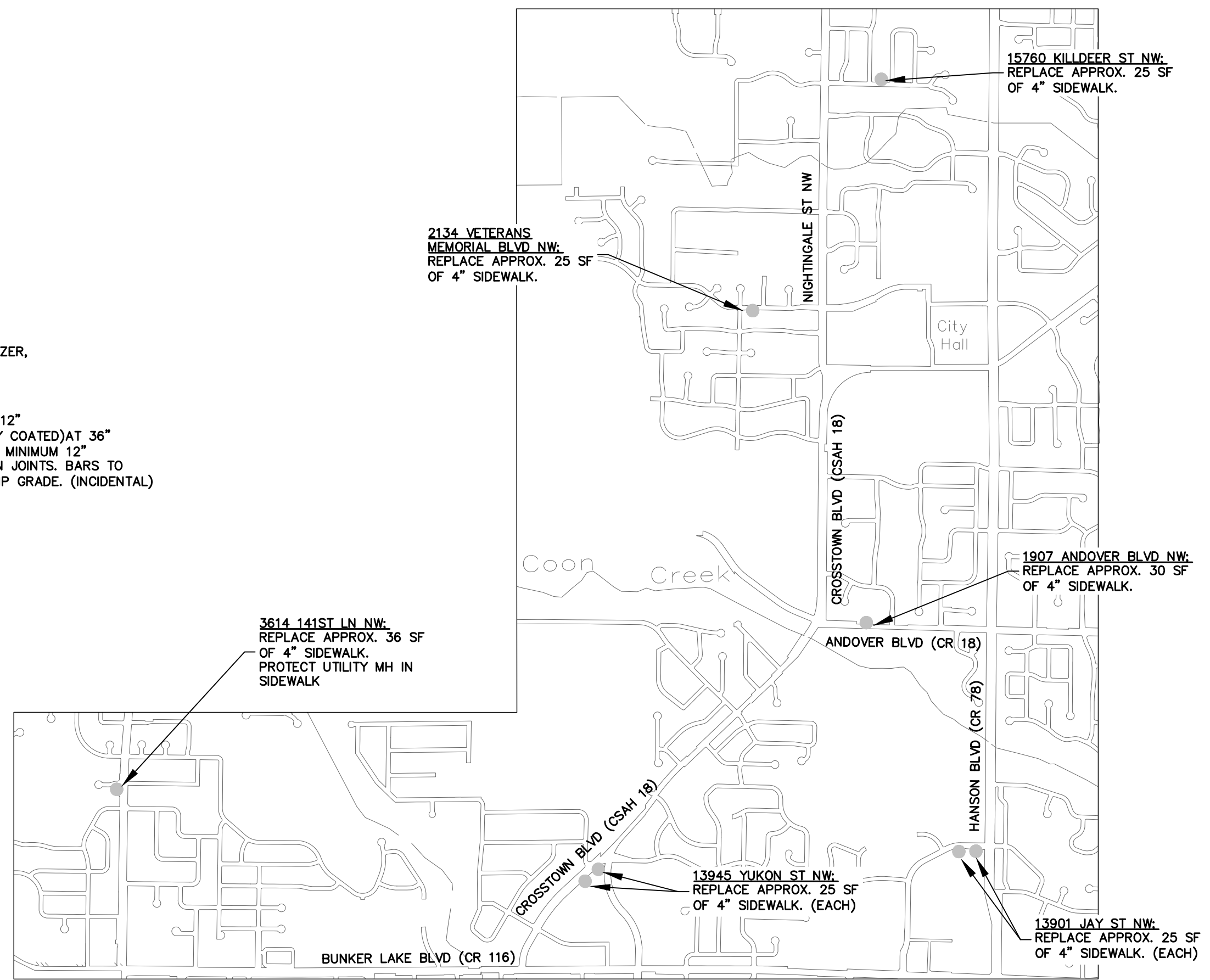
2025 FULL DEPTH RECLAMATION (C.P. 25-11A)



NO SCALE

- SAW CUT, REMOVE, REPLACE CONCRETE SIDEWALK PANEL(S). RESTORE WITH TOPSOIL, FERTILIZER, SEED.

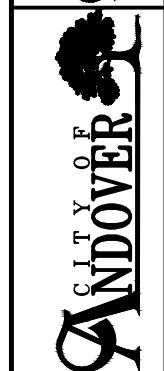
NOTE: ① DRILL AND GROUT 2 – NO.4 12” REINFORCEMENT BARS (EPOXY COATED) AT 36” MAXIMUM CENTER TO CENTER MINIMUM 12” SPACING FROM CONSTRUCTION JOINTS. BARS TO BE ADJUSTED TO MATCH RAMP GRADE. (INCIDENTAL)



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NO.	DATE	BY		

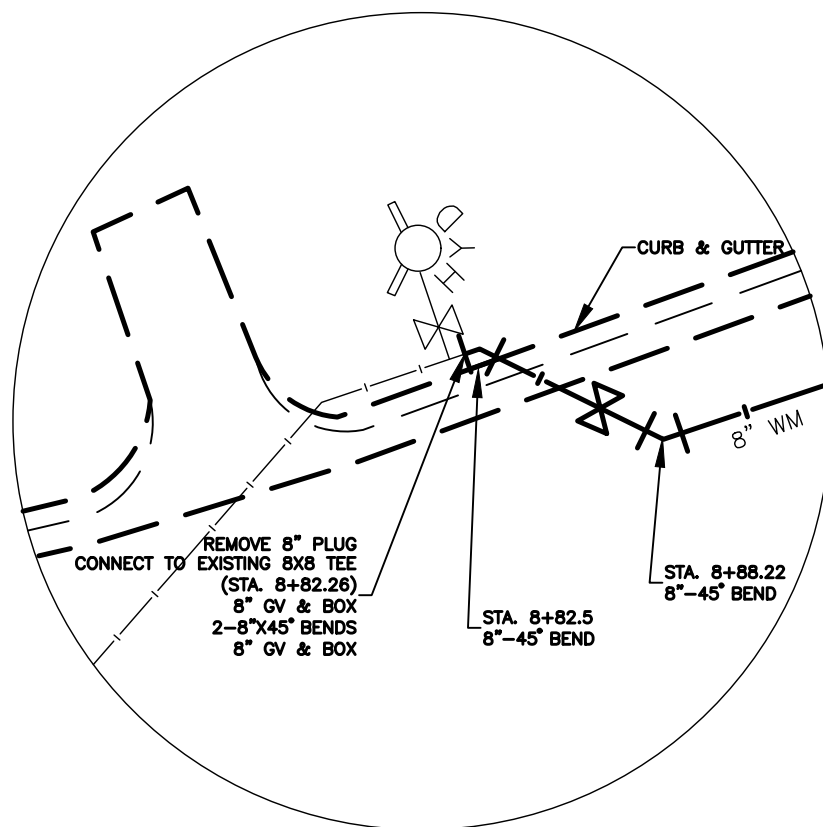
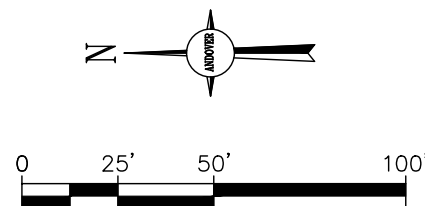
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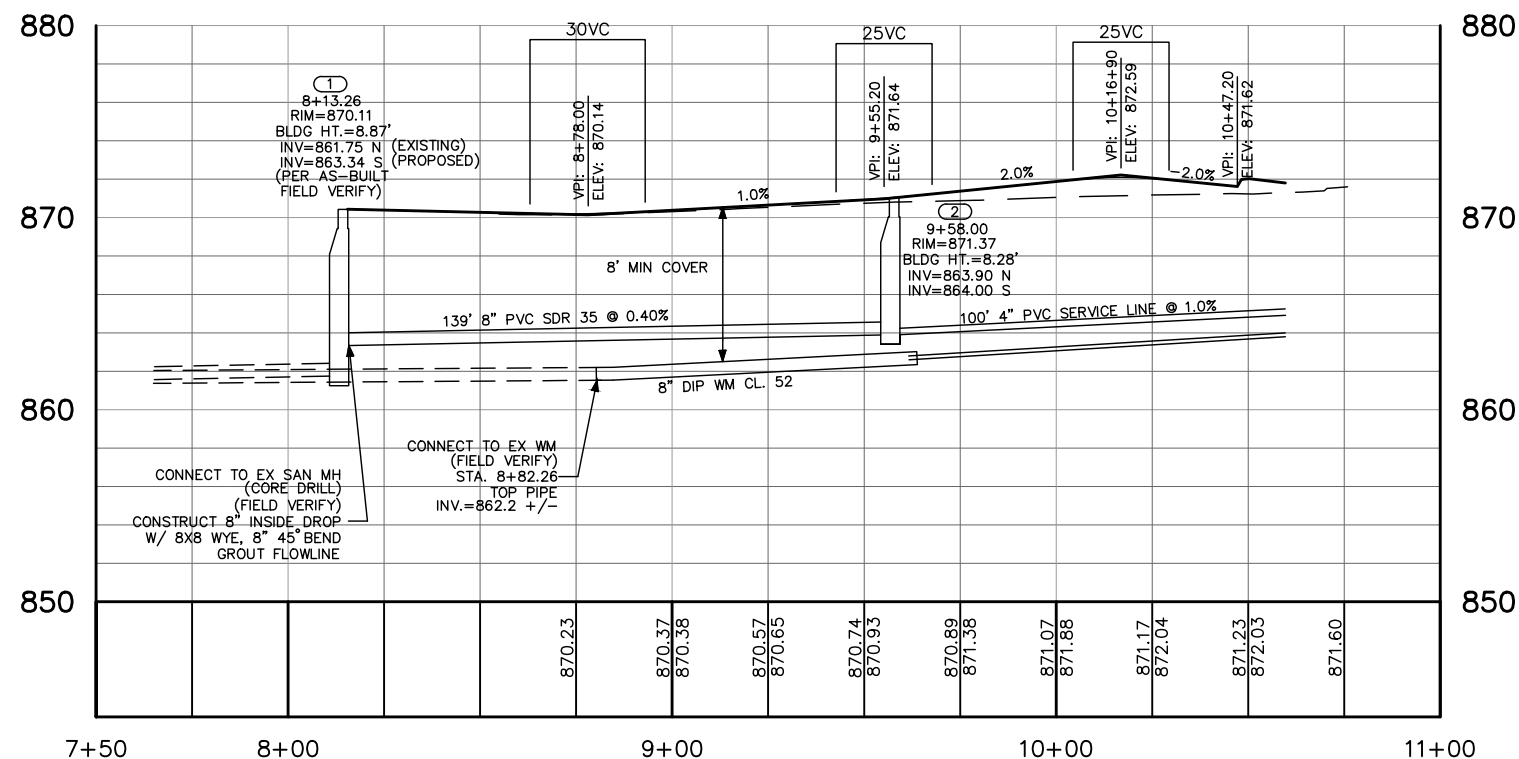
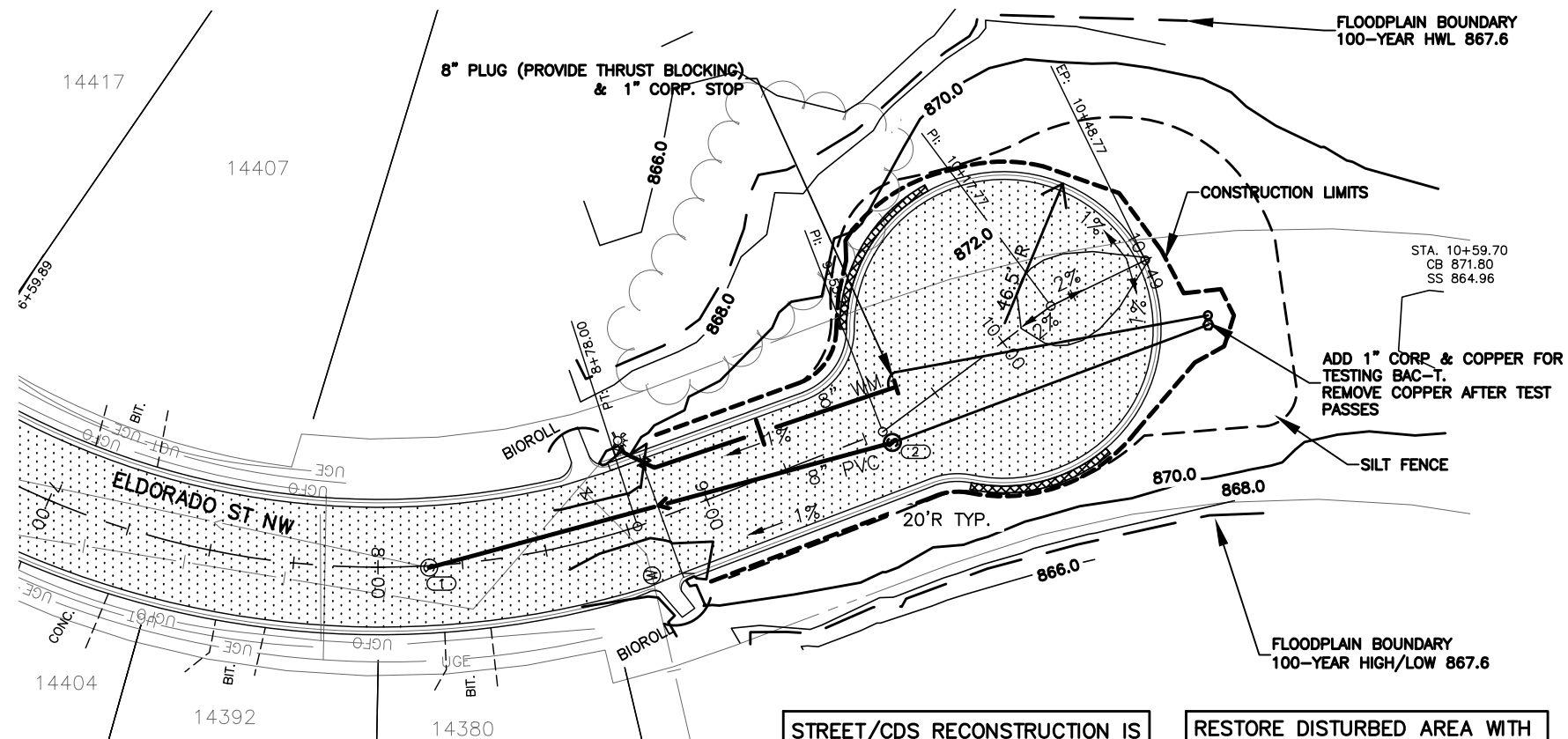


2025 SIDEWALK REPAIRS
CITY PROJECT 25-08

- PROPOSED SURMOUNTABLE CONCRETE CURB
- PROPOSED BITUMINOUS
- ** 2' BLVD IN CROSS HATCHED AREA



WATER CONNECTION DETAIL



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DRAWN	JBK		
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