

MEADOW CREEK CHURCH

CONSTRUCTION PLANS FOR SITE GRADING, SANITARY SEWER, STORM SEWER, WATERMAIN,  
CONCRETE CURB AND GUTTER, BITUMINOUS PAVING AND MISCELLANEOUS CONSTRUCTION  
FOR KINGHORN CONSTRUCTION  
IN THE CITY OF ANDOVER

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

THE 2025 EDITION OF THE CITY OF ANDOVER UTILITY AND STREET SPECIFICATIONS SHALL APPLY.

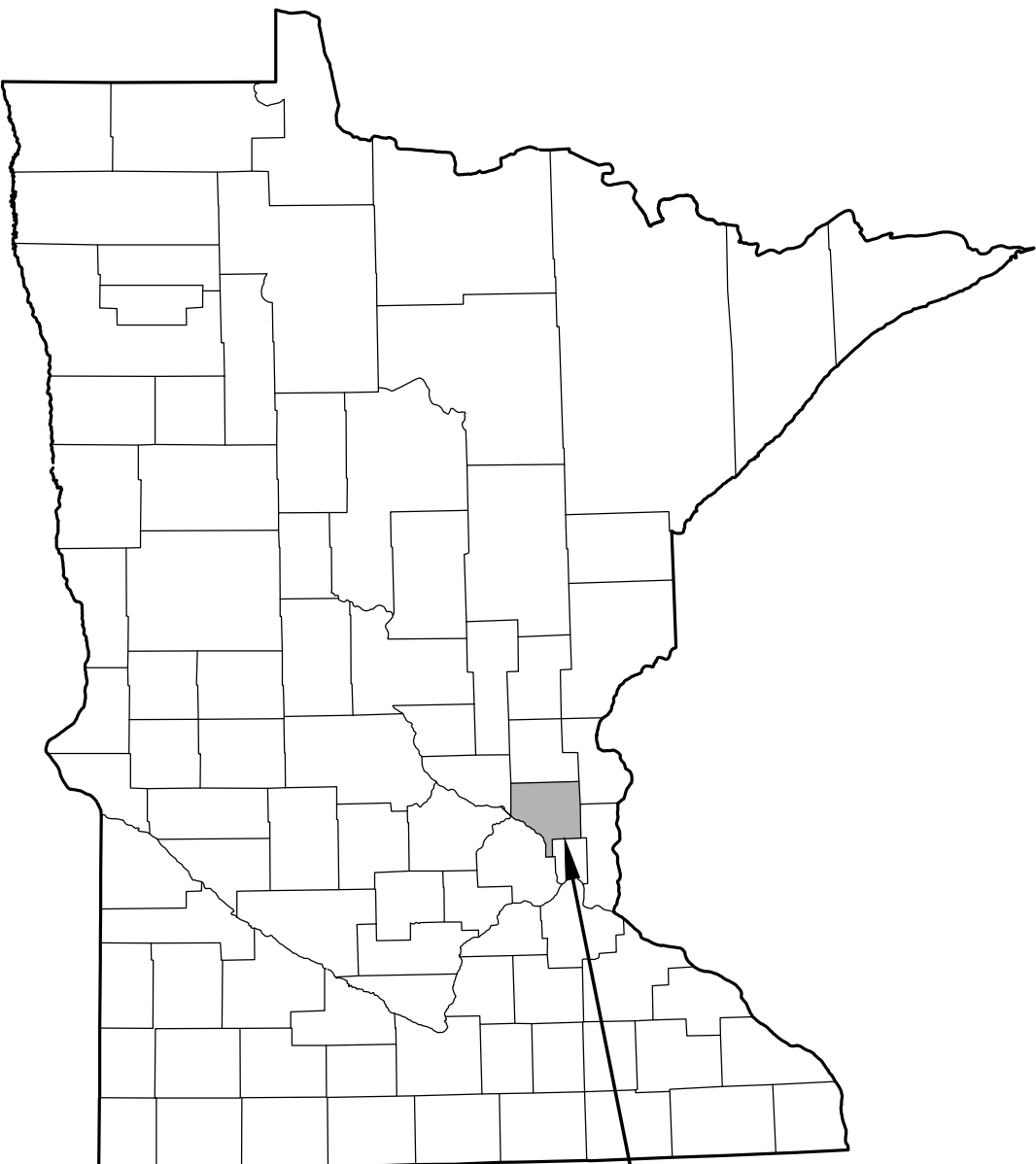
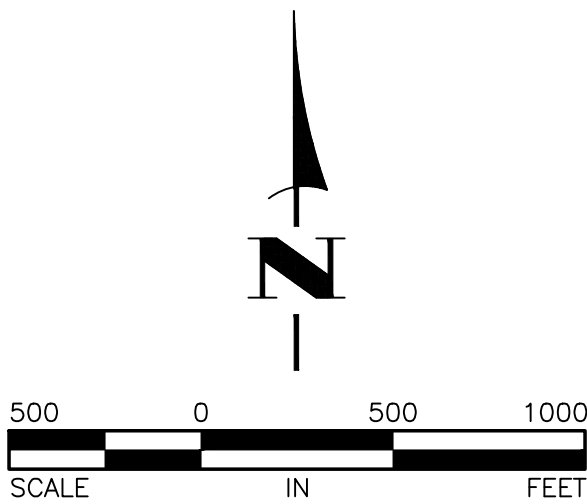
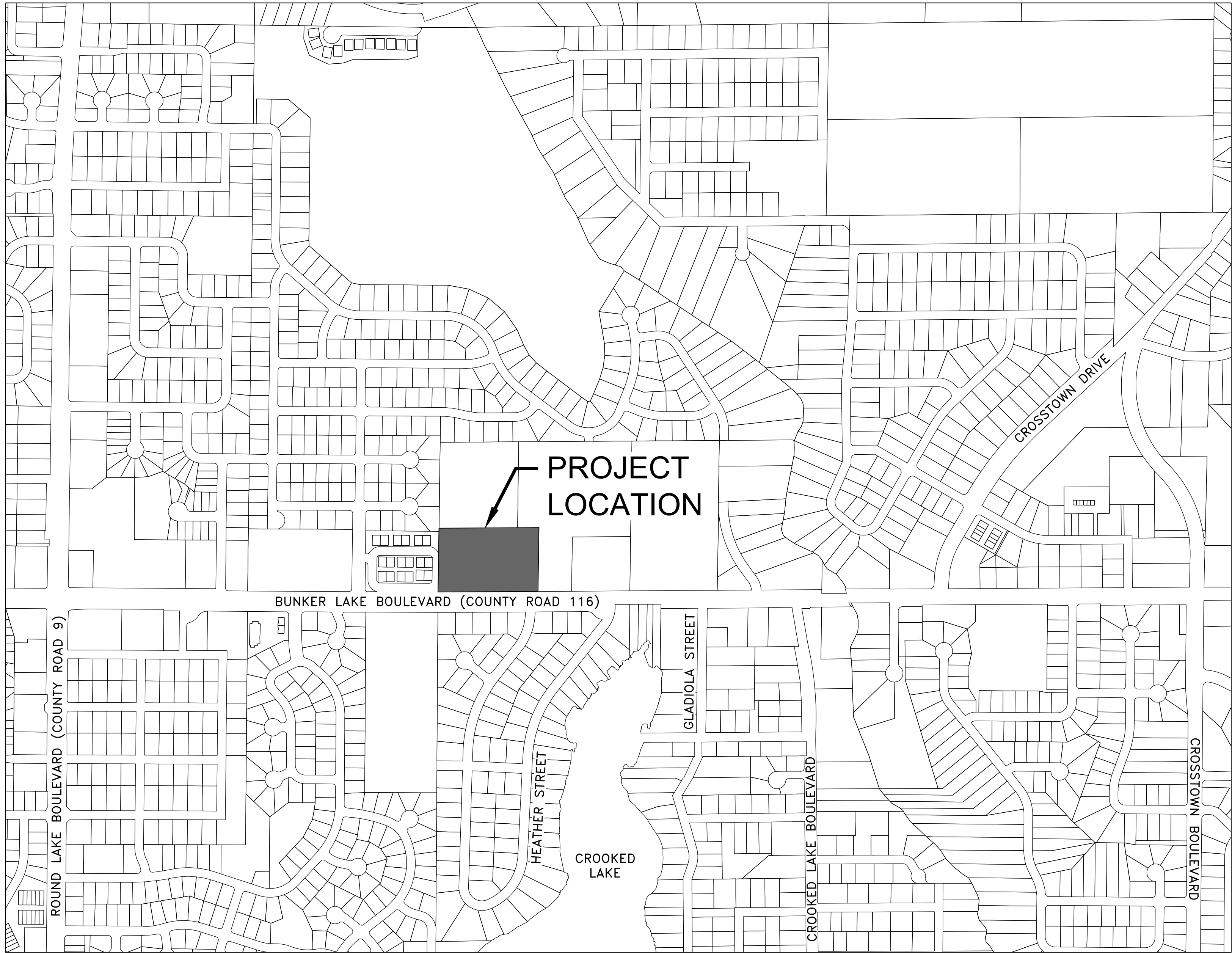
ALL FEDERAL, STATE AND LOCAL LAWS, REGULATIONS, AND ORDINANCES SHALL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

SHEET INDEX

THIS PLAN CONTAINS 24 SHEETS

SHEET NO.	DESCRIPTION
C1	TITLE SHEET
C2	CONSTRUCTION NOTES, DETAILS AND PROJECT LEGEND
C3-C6	DETAILS
C7-C12	PEDESTRIAN CURB RAMP DETAILS
C13	TRAFFIC CONTROL PLAN-CSAH 116
C14	EXISTING TOPOGRAPHY AND REMOVALS PLAN
C15	SITE PLAN
C16-C17	GRADING, DRAINAGE AND SEDIMENT CONTROL PLAN
C18	STAKING PLAN
C19	UTILITY PLAN
C20	TURN LANE CONSTRUCTION PLAN-CSAH 116
C21	RESTORATION AND PAVING PLAN
L1-L2	LANDSCAPE PLAN
X1	CROSS SECTIONS-CSAH 116 TURN LANE



CITY OF ANDOVER,  
ANOKA COUNTY,  
MINNESOTA



Civil Engineers and Land Surveyors  
3601 Thurston Ave., Anoka, Minnesota 55303  
763-427-5860 FAX 763-427-0520

- GENERAL NOTES:
- PROJECT IS LOCATED WITHIN THE BOUNDARY OF THE COON CREEK WATERSHED DISTRICT (CCWD).
- BENCHMARKS:
- TOP NUT OF THE HYDRANT LOCATED SOUTHEAST OF THE INTERSECTION OF 137TH AVENUE AND KERRY STREET. ELEV=881.32
  - TOP NUT OF THE HYDRANT LOCATED ON THE NORTH SIDE OF BUNKER LAKE BOULEVARD, APPROXIMATELY 100 FEET WEST OF HEATHER STREET. ELEV=871.50

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-22, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

OWNER/DEVELOPER

MEADOW CREEK CHURCH  
3061 BUNKER LAKE BLVD. NW  
ANDOVER, MN 55304  
MIKE HUTTON, PRESIDENT  
elders@meadowcreekchurch.org  
763-913-7081

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kpg@tandgarch.com  
763-553-7927

GENERAL CONTRACTOR

KINGHORN CONSTRUCTION  
21830 INDUSTRIAL COURT  
ROGERS, MN 55374  
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763-428-8088

ENGINEER/SURVEYOR

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ANOKA, MN 55303  
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763-427-5860  
763-427-0520 (FAX)

APPROVED: ANOKA COUNTY ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

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.

*Timothy A. Eggerichs* 43362 DATE 5/16/25  
TIMOTHY A. EGGERICHS, P.E. LIC. NO.  
HAKANSON ANDERSON  
DESIGN ENGINEER

DATE	REVISION
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GENERAL CONSTRUCTION AND SOILS NOTES:

1. STRIP ALL INPLACE TOPSOIL IN AREAS TO BE DISTURBED BY CONSTRUCTION AND REUSE AS SLOPE DRESSING. IN AREAS OF PARKING LOT AND BUILDING CONSTRUCTION, THE EXPOSED SAND SHALL BE SURFACE COMPACTED TO AT LEAST 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY, ASTM D698, IN AT LEAST THE UPPER 3 FEET.
2. UNLESS OTHERWISE RECOMMENDED IN THESE PLANS, THE GRADING SUBGRADE SHALL BE CONSTRUCTED OF SUITABLE GRADING MATERIAL. THE FILL SHALL BE PLACED IN 8" TO 10" LOOSE LIFTS, AND COMPACTED TO 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
3. SUITABLE GRADING MATERIAL FOR THIS PROJECT SHALL CONSIST OF ALL SOILS ENCOUNTERED WITH THE EXCEPTION OF TOPSOIL, SILT, DEBRIS, ORGANIC MATERIAL AND OTHER UNSTABLE MATERIAL.
4. CONTRACTOR SHALL REVIEW THE REPORT OF GEOTECHNICAL EXPLORATION, PREPARED BY AMERICAN ENGINEERING TESTING, FOR ADDITIONAL SITE PREPARATION REQUIREMENTS.
5. PROVIDE A SAW CUT WHEN PLACING NEW PAVEMENT ADJACENT TO INPLACE PAVEMENT AND AT TERMINI OF CONSTRUCTION TO ENSURE A UNIFORM JOINT.
6. BITUMINOUS AND CONCRETE ITEMS DISTURBED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH MN/DOT SPEC. 2104.
7. USE TACK COAT BETWEEN ALL BITUMINOUS MIXTURES. THE BITUMINOUS TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF 0.04 GAL/SY TO 0.06 GAL/SY BETWEEN BITUMINOUS LAYERS. FIELD DILUTION IS NOT ALLOWED.
8. THE BITUMINOUS MIXTURES SHALL MEET THE REQUIREMENTS OF SPECIFICATIONS 2360 AND 3139.
9. CONTRACTOR SHALL ACQUIRE AN ANOKA COUNTY HIGHWAY DEPARTMENT PERMIT PRIOR TO WORKING IN THE CSAH 116 RIGHT-OF-WAY.
10. CONTRACTOR SHALL ACQUIRE A DEPARTMENT OF LABOR AND INDUSTRY PERMIT PRIOR TO CONSTRUCTING ANY UNDERGROUND UTILITIES SHOWN ON THESE PLANS.

GENERAL EROSION CONTROL NOTES:

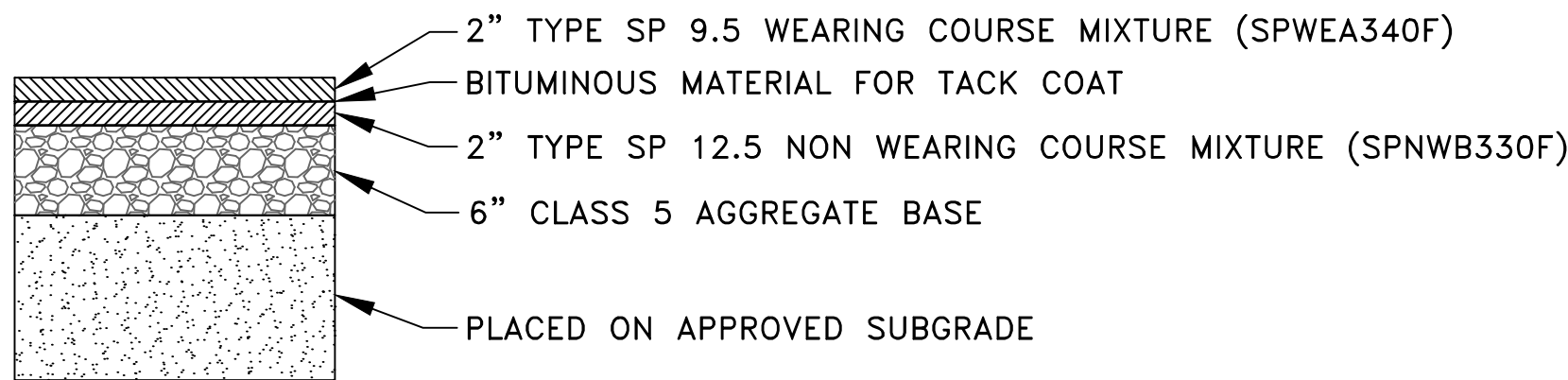
1. EROSION CONTROL SHALL CONFORM TO THE MN/DOT EROSION CONTROL HANDBOOK.
2. PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL ACQUIRE THE MPCA CONSTRUCTION STORMWATER GENERAL PERMIT. A COPY OF THE PERMIT SHALL BE SUBMITTED TO THE CITY PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL INSTALL EROSION AND SEDIMENT CONTROL FACILITIES (BMP'S) PRIOR TO GRADING AND REMOVAL ACTIVITIES. BMP'S SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION ACTIVITIES AND POTENTIAL FOR EROSION HAS PASSED.
4. THE CONTRACTOR SHALL SCHEDULE HIS OPERATION TO MINIMIZE THE AMOUNT OF DISTURBED AREA AT ANY GIVEN TIME.
5. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EROSION AND SEDIMENT CONTROL MEASURES WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION.

REFERENCE NOTES:

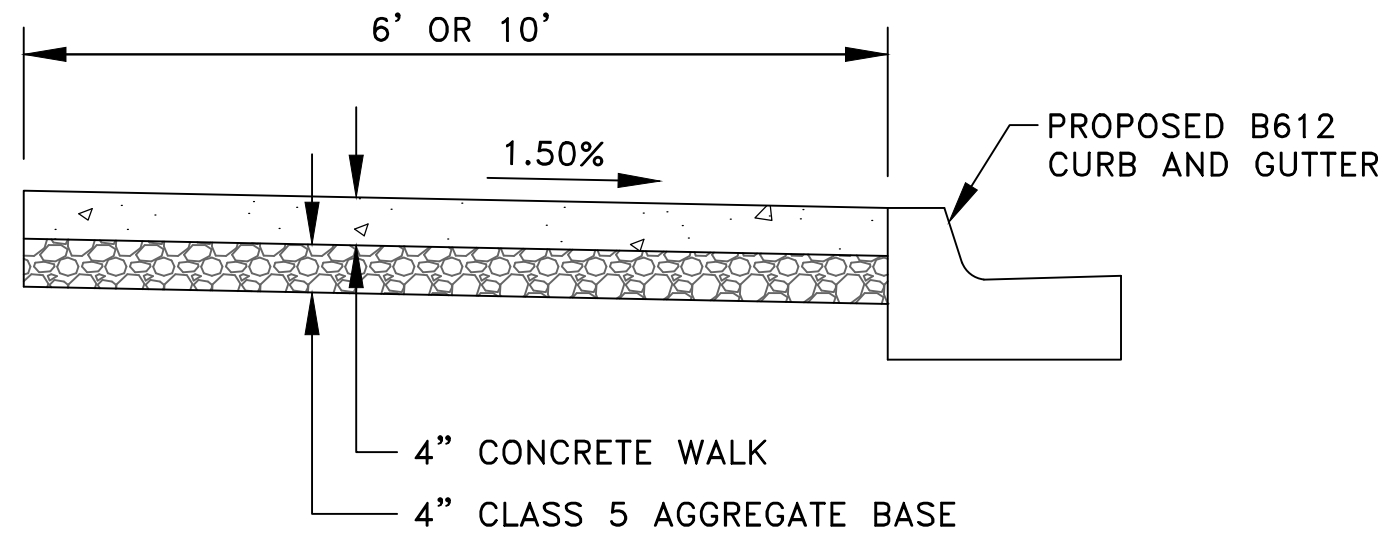
- ① THE EXISTING MATERIAL MAY BE USED IF IT MEETS THE REQUIREMENTS FOR SELECT GRANULAR EMBANKMENT.
- ② B418 CURB IS LOCATED ON CSAH 116.

SEQUENCE OF CONSTRUCTION ACTIVITIES:

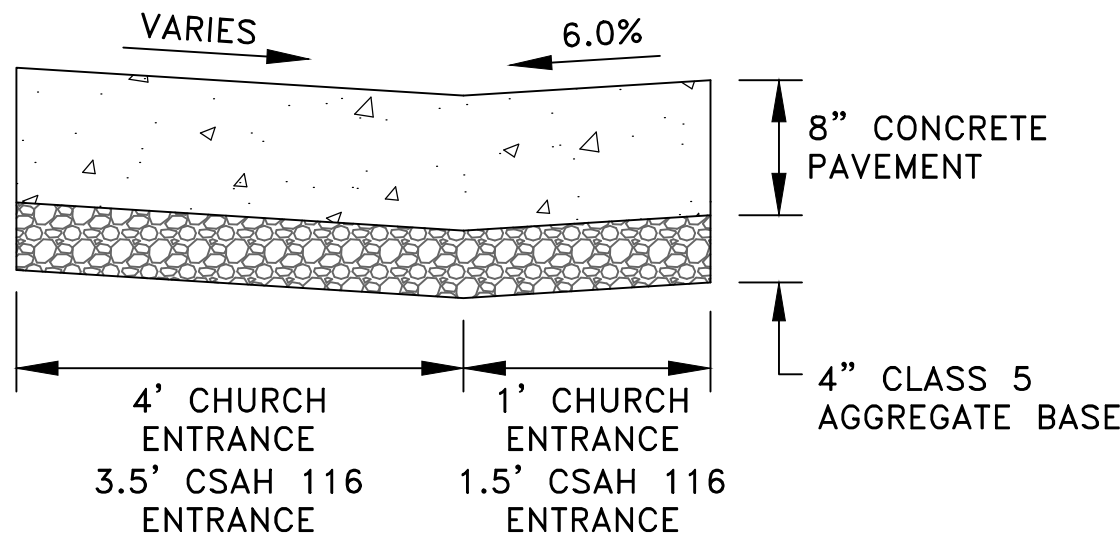
1. INSTALL PERIMETER SILT FENCE AND SEDIMENT CONTROL LOG PRIOR TO STARTING ANY LAND DISTURBING ACTIVITIES.
2. INSTALL INLET PROTECTION DEVICES AT CATCH BASINS THAT RECEIVE STORMWATER RUNOFF FROM THE DISTURBED AREA OF THE SITE.
3. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AT THE PROPOSED CONSTRUCTION SITE ACCESS.
4. CLEAR AND GRUB TREES.
5. REMOVE BITUMINOUS AND CONCRETE PAVEMENT, CONCRETE CURB AND GUTTER, BUILDINGS AND UTILITIES.
6. ROUGH GRADE SITE.
7. BEGIN BUILDING CONSTRUCTION.
8. INSTALL UTILITIES, INCLUDING STORM SEWER, SANITARY SEWER AND WATERMAIN.
9. INSTALL INLET PROTECTION DEVICES IN THE CATCH BASINS.
10. FINAL GRADE SITE.
11. CONSTRUCT PARKING LOT AND ACCESS ROADS WITH AGGREGATE BASE, CONCRETE CURB AND GUTTER AND BITUMINOUS PAVEMENT.
12. INSTALL PRIVATE UTILITIES, INCLUDING GAS, TELEPHONE AND ELECTRIC.
13. RESTORE AND STABILIZE DISTURBED AREAS AS SHOWN ON SHEET C21.
14. REMOVE SILT FENCE, SEDIMENT CONTROL LOGS AND ANY OTHER EROSION OR SEDIMENT CONTROL DEVICES AFTER FINAL STABILIZATION.



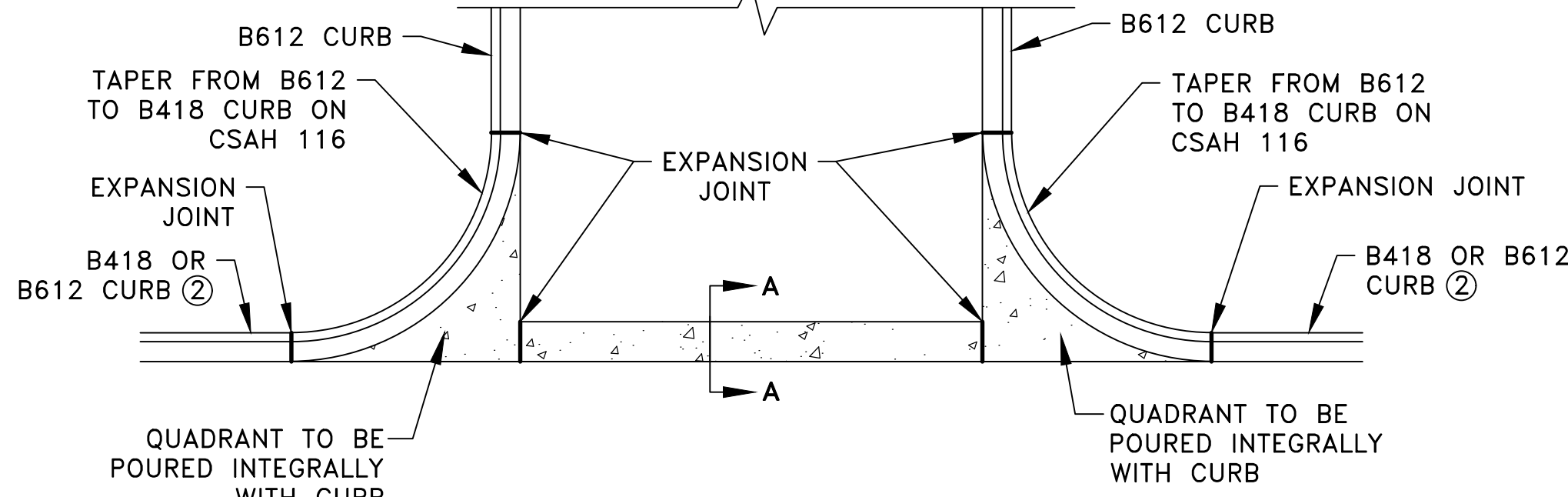
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C2  
BITUMINOUS PAVEMENT SECTION  
NO SCALE



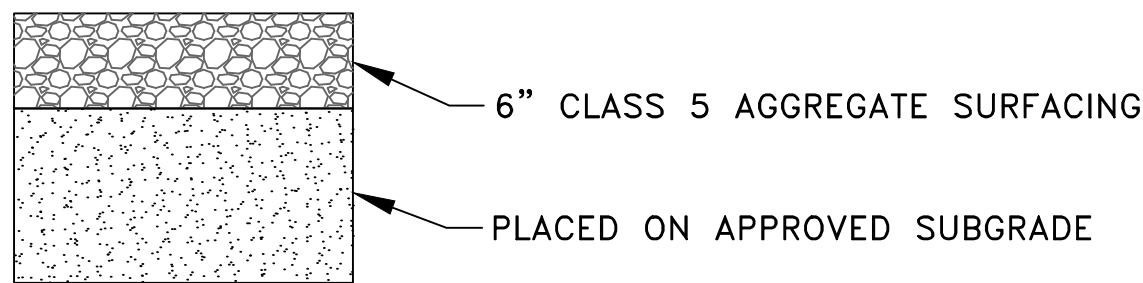
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C2  
CONCRETE SIDEWALK SECTION  
NO SCALE



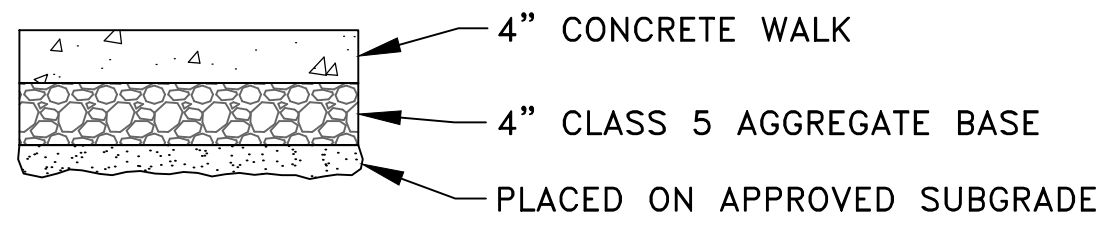
SECTION A-A



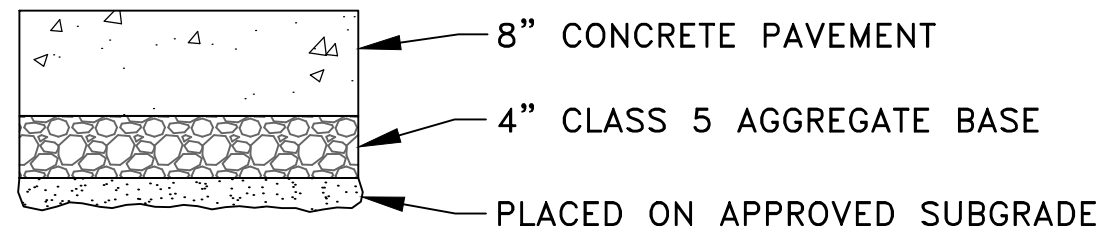
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CONCRETE VALLEY GUTTER  
NO SCALE



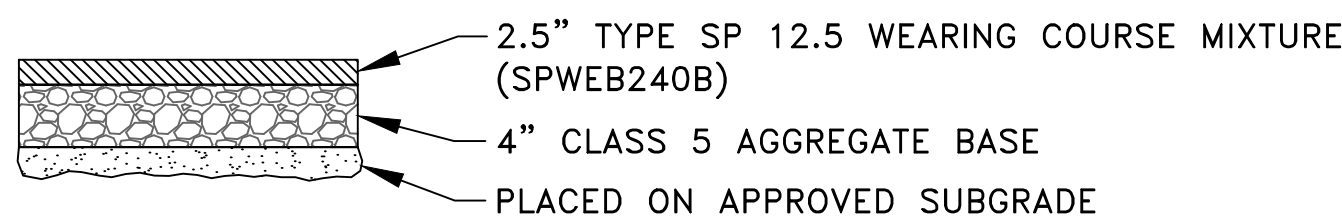
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C2  
TEMPORARY GRAVEL PARKING LOT SECTION  
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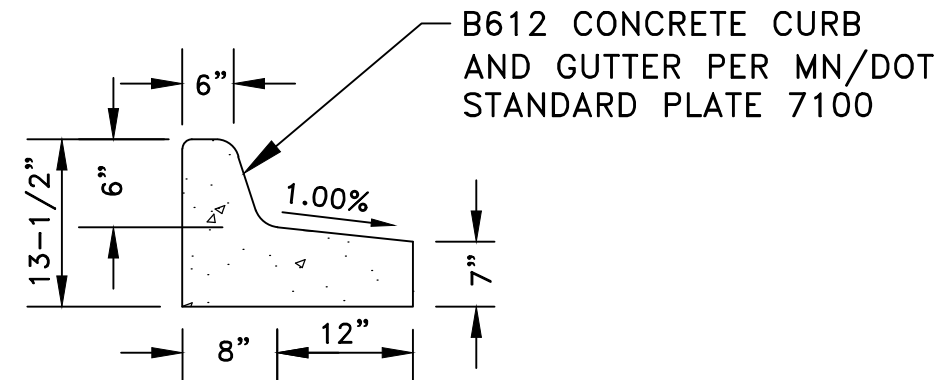
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C2  
CONCRETE SIDEWALK SECTION  
NO SCALE



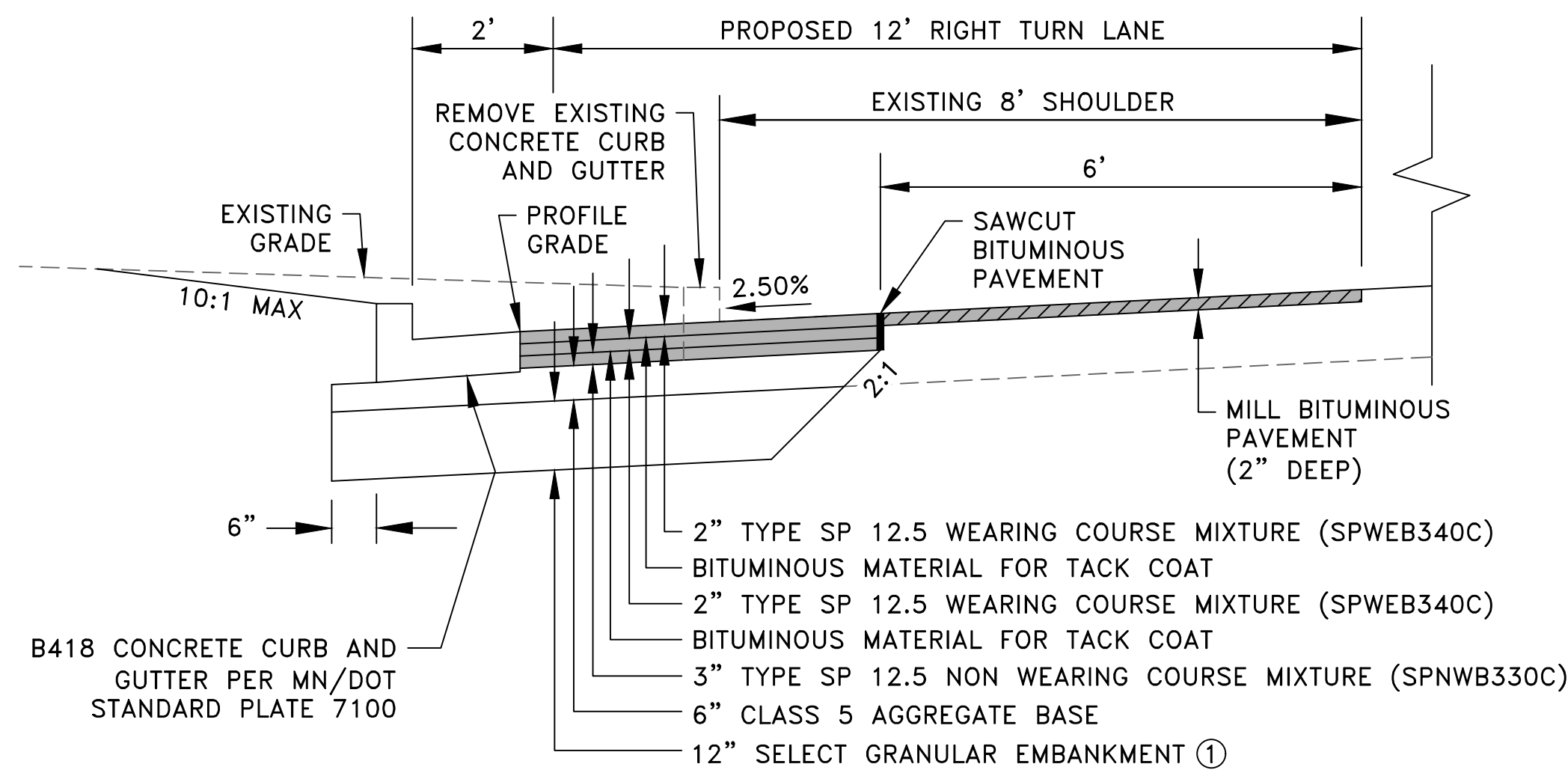
5  
C2  
CONCRETE PAVEMENT SECTION  
NO SCALE



6  
C2  
BITUMINOUS TRAIL SECTION  
NO SCALE



7  
C2  
TIPOUT CURB DETAILS  
NO SCALE



8  
C2  
RIGHT TURN LANE SECTION  
CSAH 116  
N.T.S.

LEGEND

- XXX --- EXISTING CONTOUR
- XXX --- PROPOSED CONTOUR
- G --- GAS MAIN
- P-BUR --- BURIED ELECTRIC LINE
- P-OH --- OVERHEAD UTILITY LINE
- T-BUR --- BURIED TELEPHONE LINE
- FO-BUR --- BURIED FIBER LINE
- TV-BUR --- BURIED TELEVISION LINE
- I --- EXISTING WATERMAIN
- > --- EXISTING SANITARY SEWER
- >> --- EXISTING STORM SEWER
- ===== EXISTING CONCRETE CURB
- EXISTING BITUMINOUS PAVEMENT
- EXISTING CONCRETE WALK/PAVEMENT
- EXISTING GRAVEL SURFACE
- ===== TREE DRIPLINE
- CONIFEROUS AND DECIDUOUS TREES
- SHRUB
- EXISTING CATCH BASINS
- EXISTING SANITARY SEWER MANHOLE
- EXISTING STORM SEWER APRON
- EXISTING WATERMAIN VALVE
- EXISTING HYDRANT
- EXISTING WELL
- EXISTING UTILITY HANDHOLE
- EXISTING UTILITY PEDESTALS
- EXISTING UTILITY POLE
- EXISTING GUY WIRE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED WATERMAIN
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED CONCRETE CURB
- PROPOSED CATCH BASIN OR POND OUTLET STRUCTURE
- PROPOSED STORM MANHOLE
- PROPOSED SANITARY MANHOLE
- PROPOSED WATERMAIN VALVE
- SOIL BORING LOCATION
- SB-X
- DETAIL NUMBER
- SHEET NUMBER

STANDARD PLATES	
THE FOLLOWING STANDARD PLATES APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT	
PLATE NO.	DESCRIPTION
4006L	MANHOLE OR CATCH BASIN - PRECAST - DESIGNS G AND H
4010I	CONCRETE ADJUSTING RINGS
4026B	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4110F	COVER CASTING FOR MANHOLE
4125D	CATCH BASIN FRAME CASTING (FOR SQUARE GRATE) - CASTING NO. 806
4134A	CURB BOX CASTING FOR CATCH BASIN (FOR DESIGN B CURBS) - CASTING NO. 825
4154B	CATCH BASIN GRATE CASTING - CASTING NO. 816
7100H	CONCRETE CURB AND GUTTER (DESIGN B AND DESIGN V)
8000K	TEMPORARY CHANNELIZERS (3 SHEETS)

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*Timothy A. Egger*  
TIMOTHY A. EGGER, P.E.  
Date 5/16/25 Lic. No. 43362

DESIGNED BY:  
TAE  
DRAWN BY:  
TAE  
CHECKED BY:  
CJJ



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MEADOW CREEK CHURCH

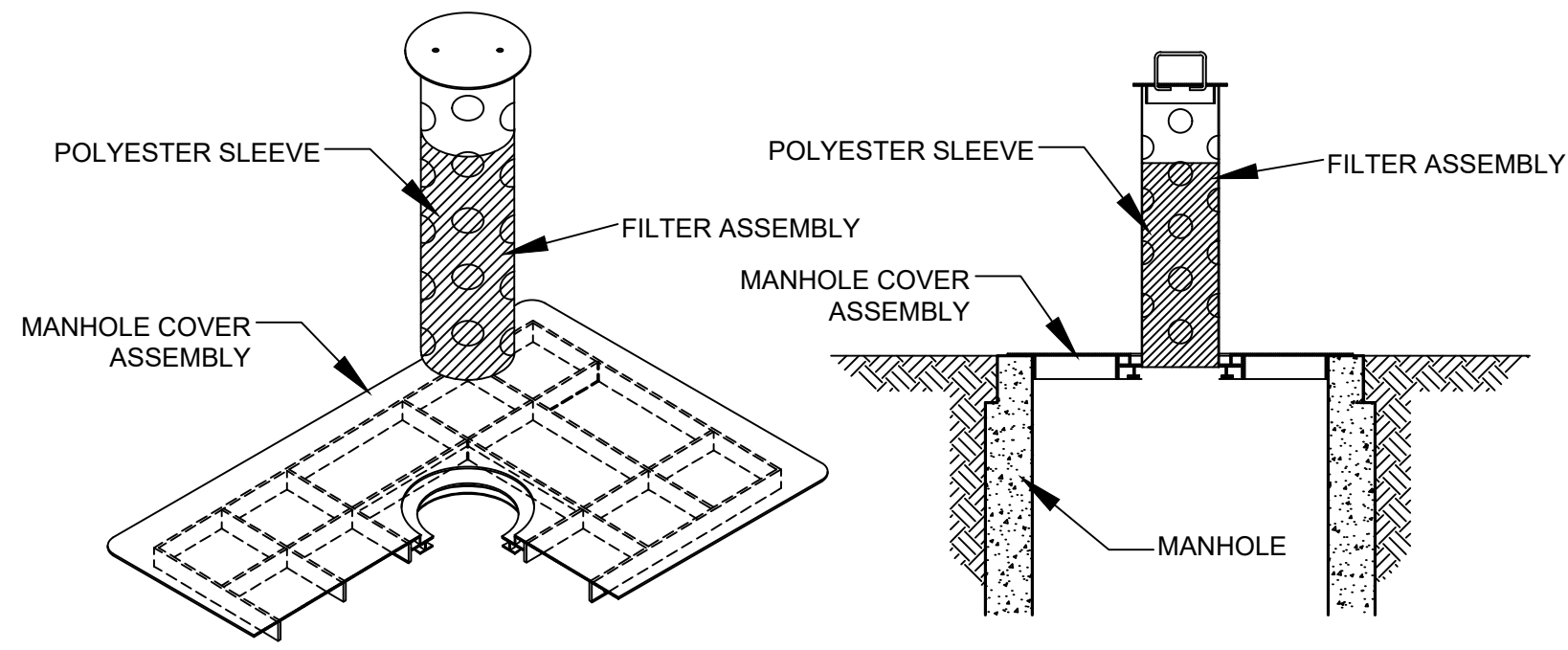
CONSTRUCTION NOTES, DETAILS  
AND PROJECT LEGEND  
CITY OF ANDOVER, MINNESOTA

SHEET  
C2  
OF  
C21  
SHEETS

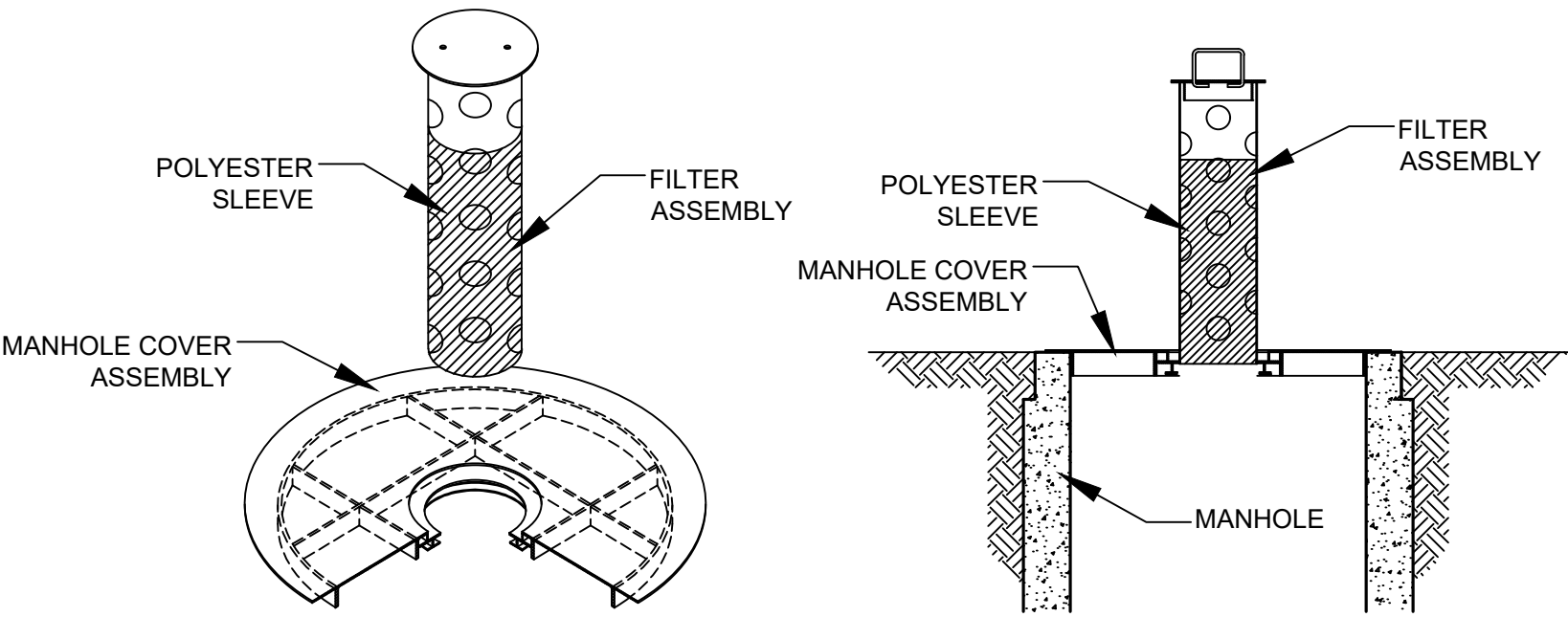
**Kinghorn**  
CONSTRUCTION



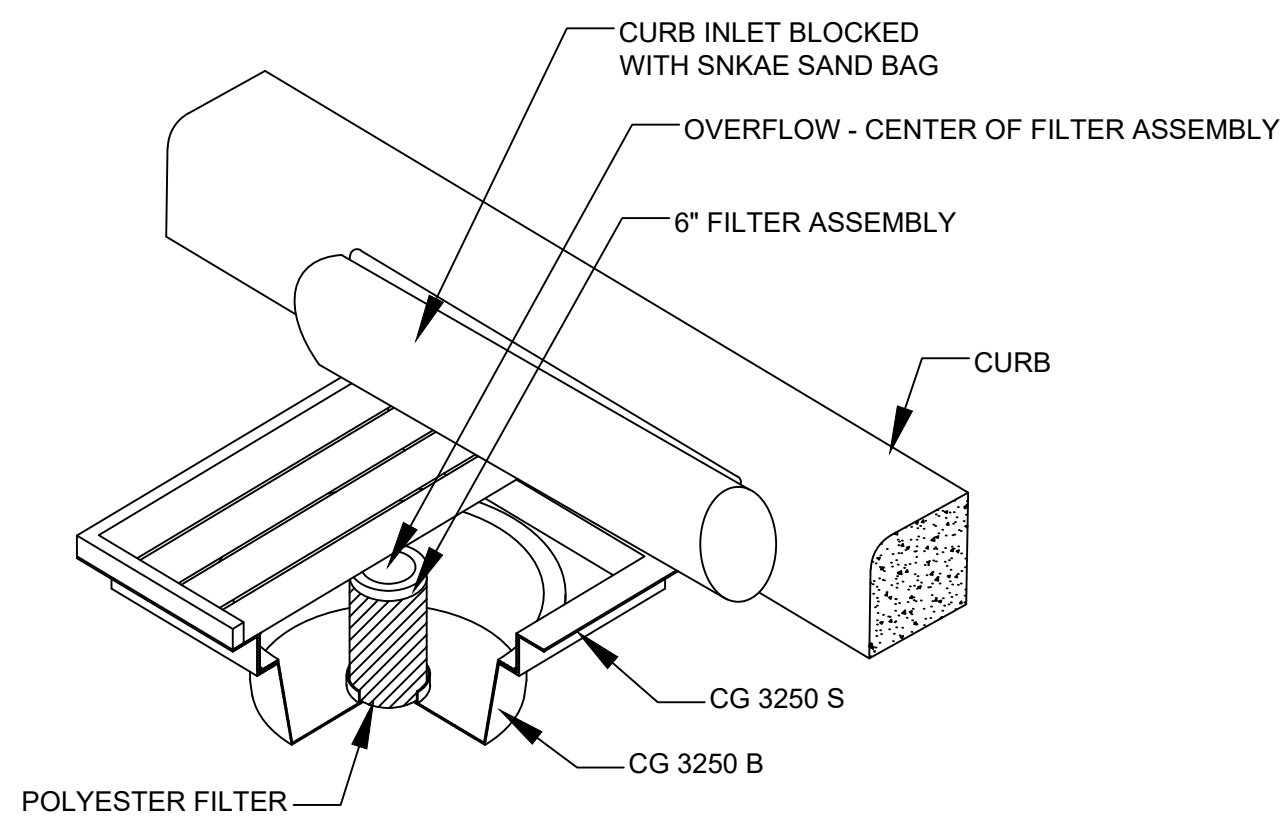
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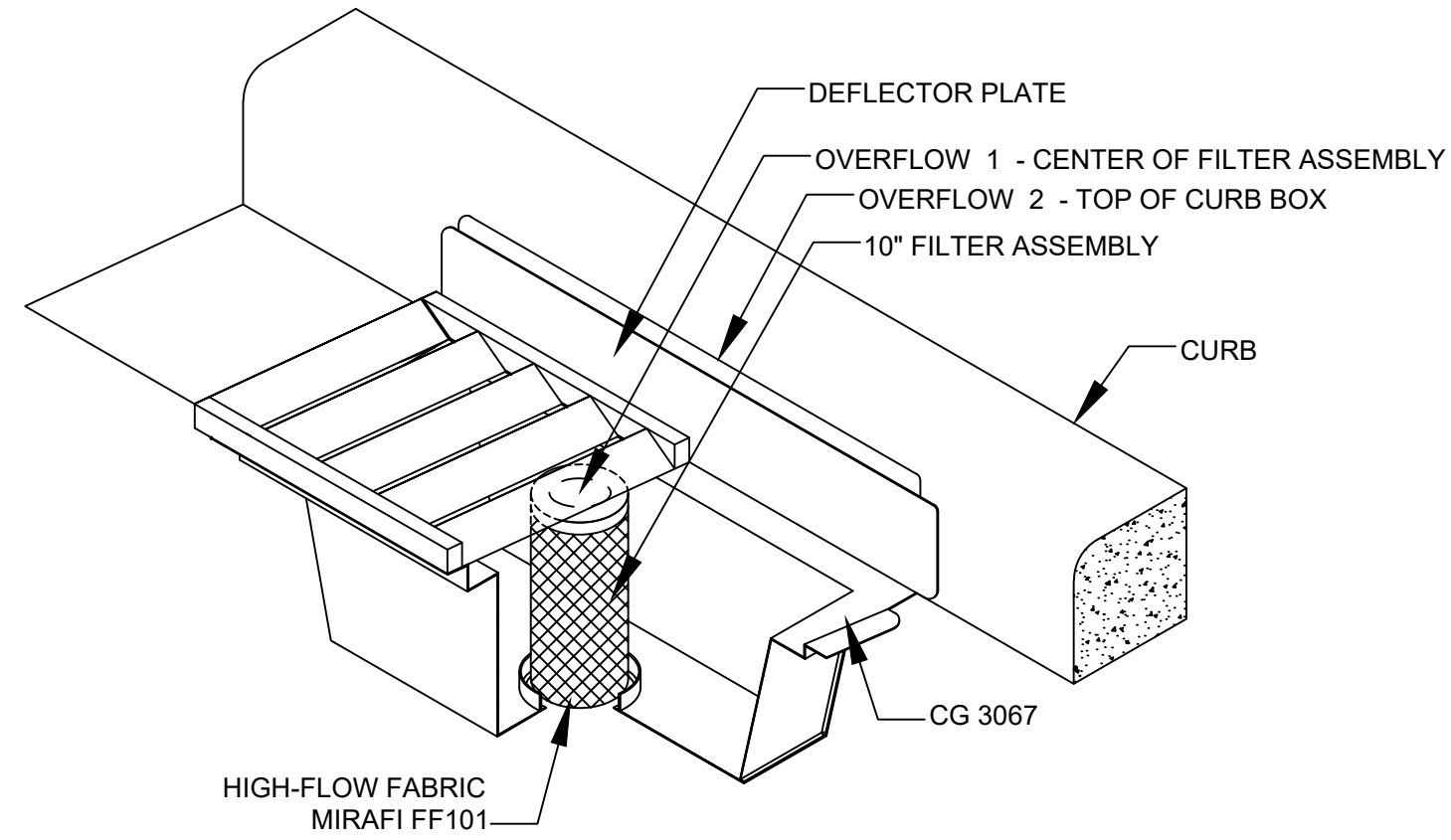
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C3  
STORM DRAIN INLET PROTECTION  
PRE-CURB



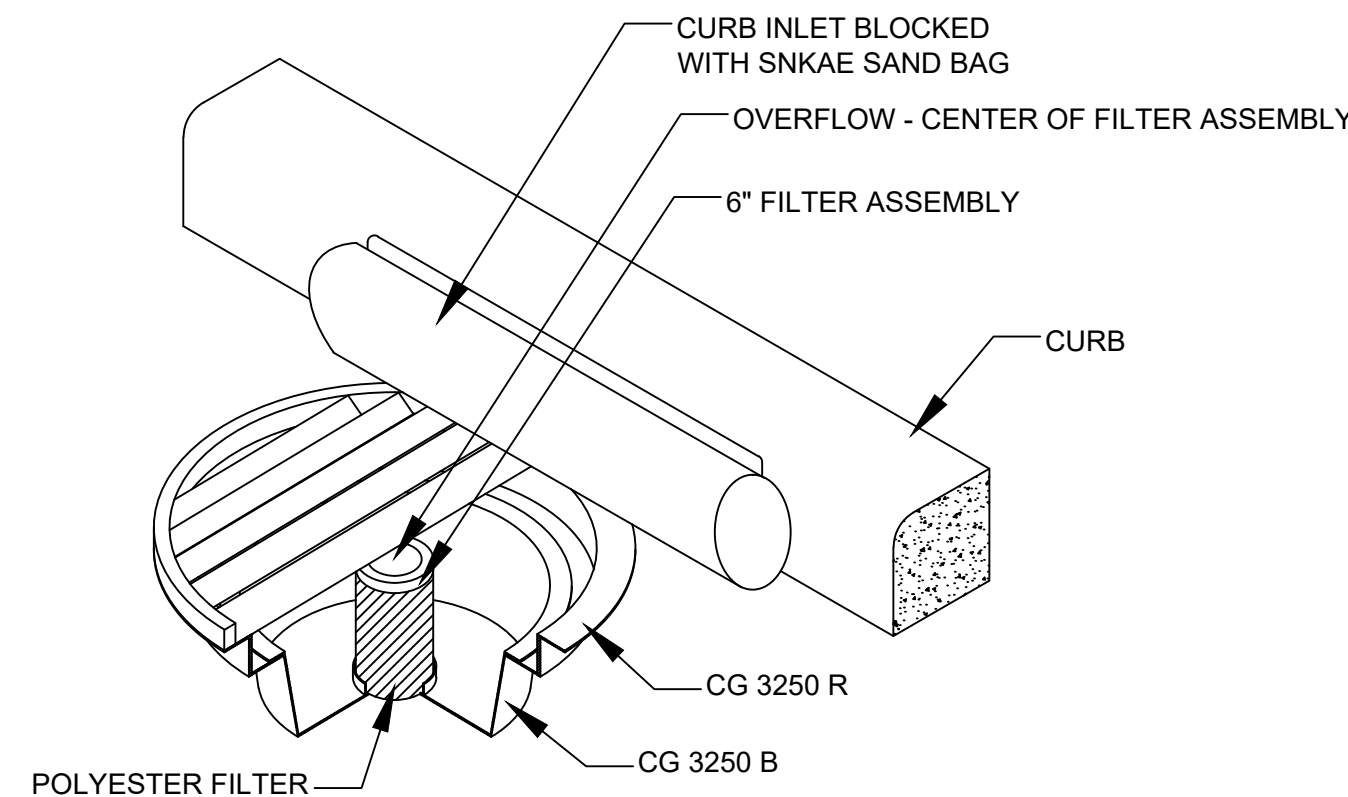
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C3  
STORM DRAIN INLET PROTECTION



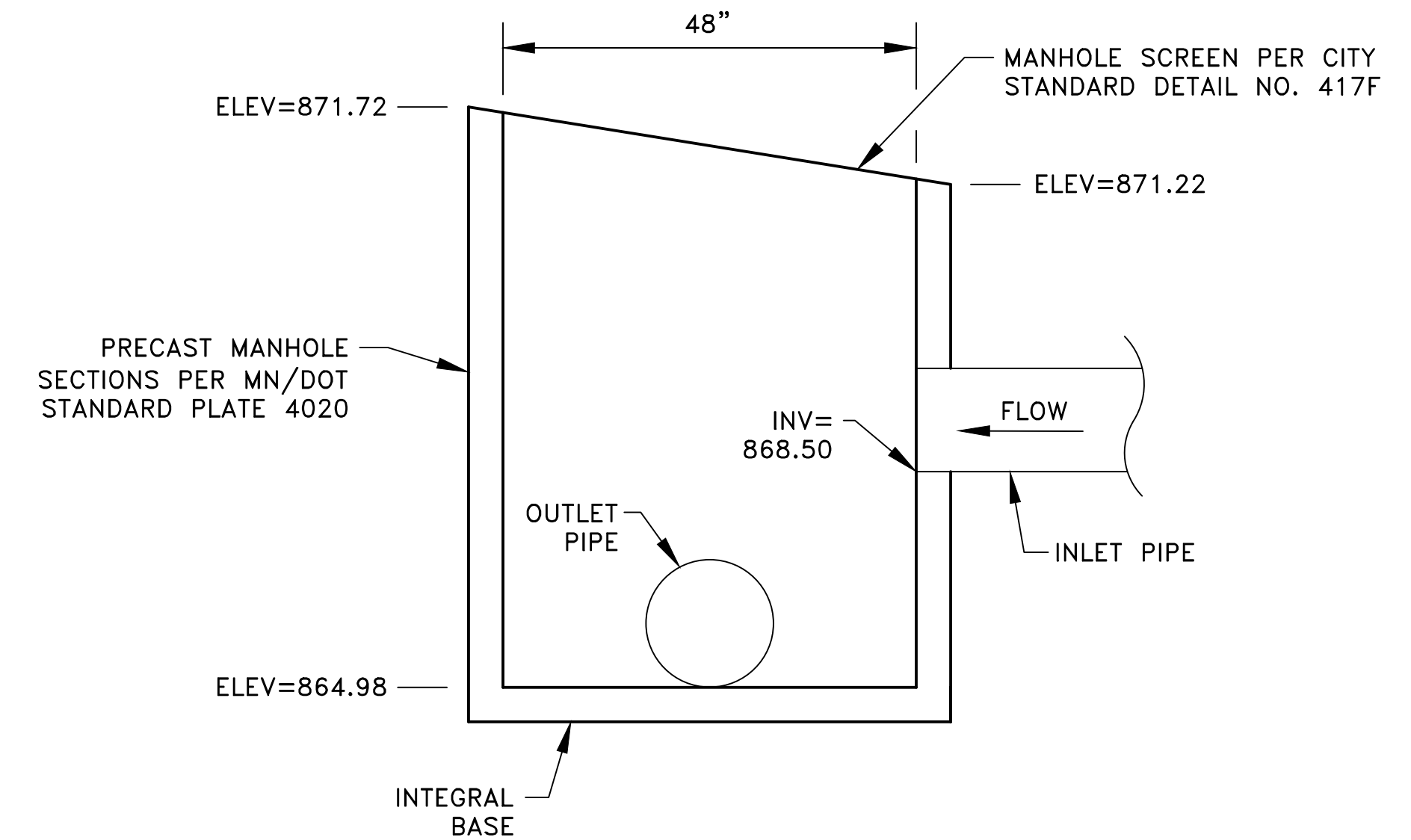
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C3  
STORM DRAIN INLET PROTECTION  
POST-CURB



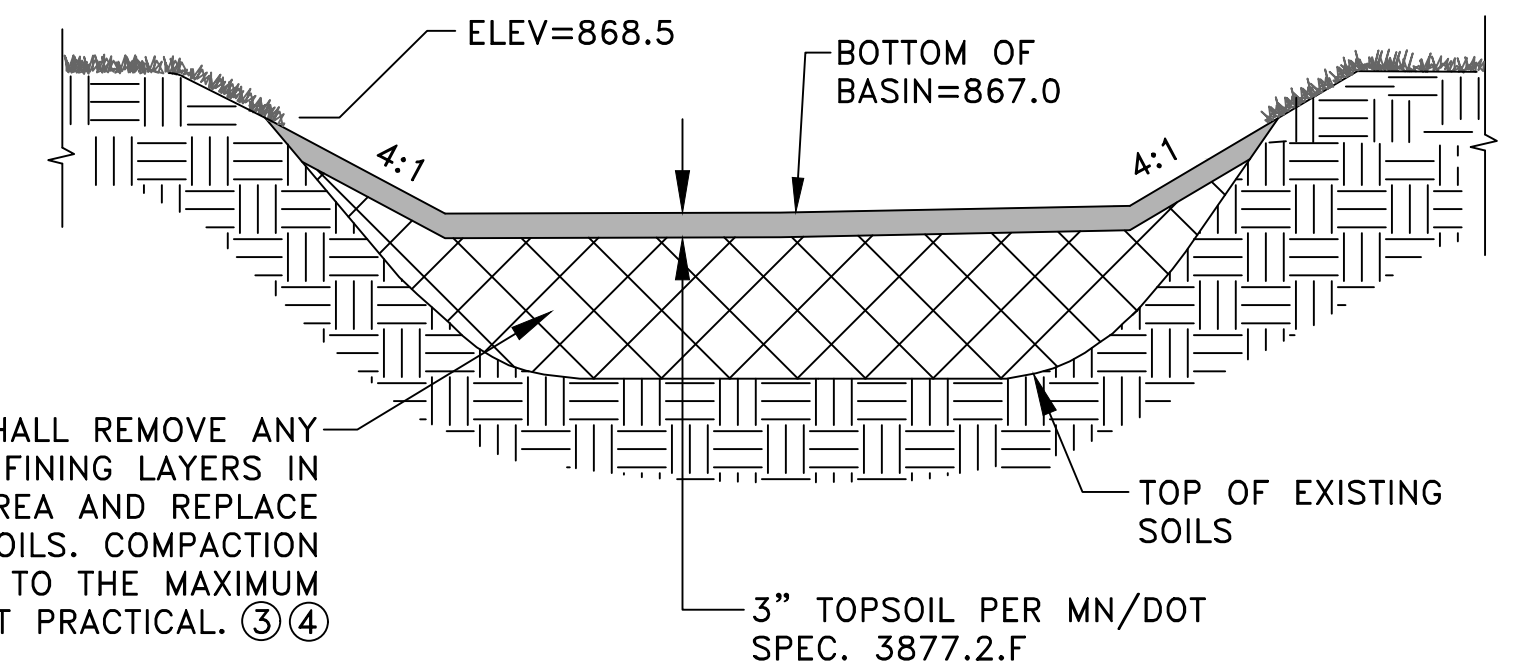
4  
C3  
STORM DRAIN INLET PROTECTION  
POST-CURB



5  
C3  
STORM DRAIN INLET PROTECTION  
POST-CURB



6  
C3  
POND OUTLET STRUCTURE  
NO SCALE



7  
C3  
INFILTRATION BASIN ①②  
NO SCALE

- REFERENCE NOTES:
- CONTRACTOR SHALL PROTECT THE INFILTRATION BASIN PRIOR TO THE START OF CONSTRUCTION. CONSTRUCTION EQUIPMENT SHALL BE MINIMIZED OVER THE FOOTPRINT OF THE BASIN. ONLY LOW PRESSURE, WIDE TRACKED EQUIPMENT SHALL BE USED FOR CONSTRUCTION.
  - INFILTRATION BASINS SHALL NOT BE GRADED TO WITHIN THREE FEET OF THE FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED OR RIGOROUS EROSION PREVENTION AND SEDIMENT CONTROLS TO KEEP SEDIMENT AND RUNOFF COMPLETELY AWAY FROM THE INFILTRATION AREAS HAVE BEEN PROVIDED.
  - THE INFILTRATION RATE FOR THE SOILS IN THE BOTTOM OF THE INFILTRATION BASIN SHALL BE BETWEEN 0.45 AND 8.3 INCHES PER HOUR. THE CONTRACTOR MAY HAVE TO AMEND THE SOILS TO MEET THIS REQUIREMENT. A POST-CONSTRUCTION INFILTRATION RATE TEST IS REQUIRED. PROVIDE TEST RESULTS TO THE CITY AND THE CCWD.
  - COMPACTED SOIL WITHIN THE INFILTRATION BASIN SHALL BE SCARIFIED TO A DEPTH OF 12" PRIOR TO RESTORATION.

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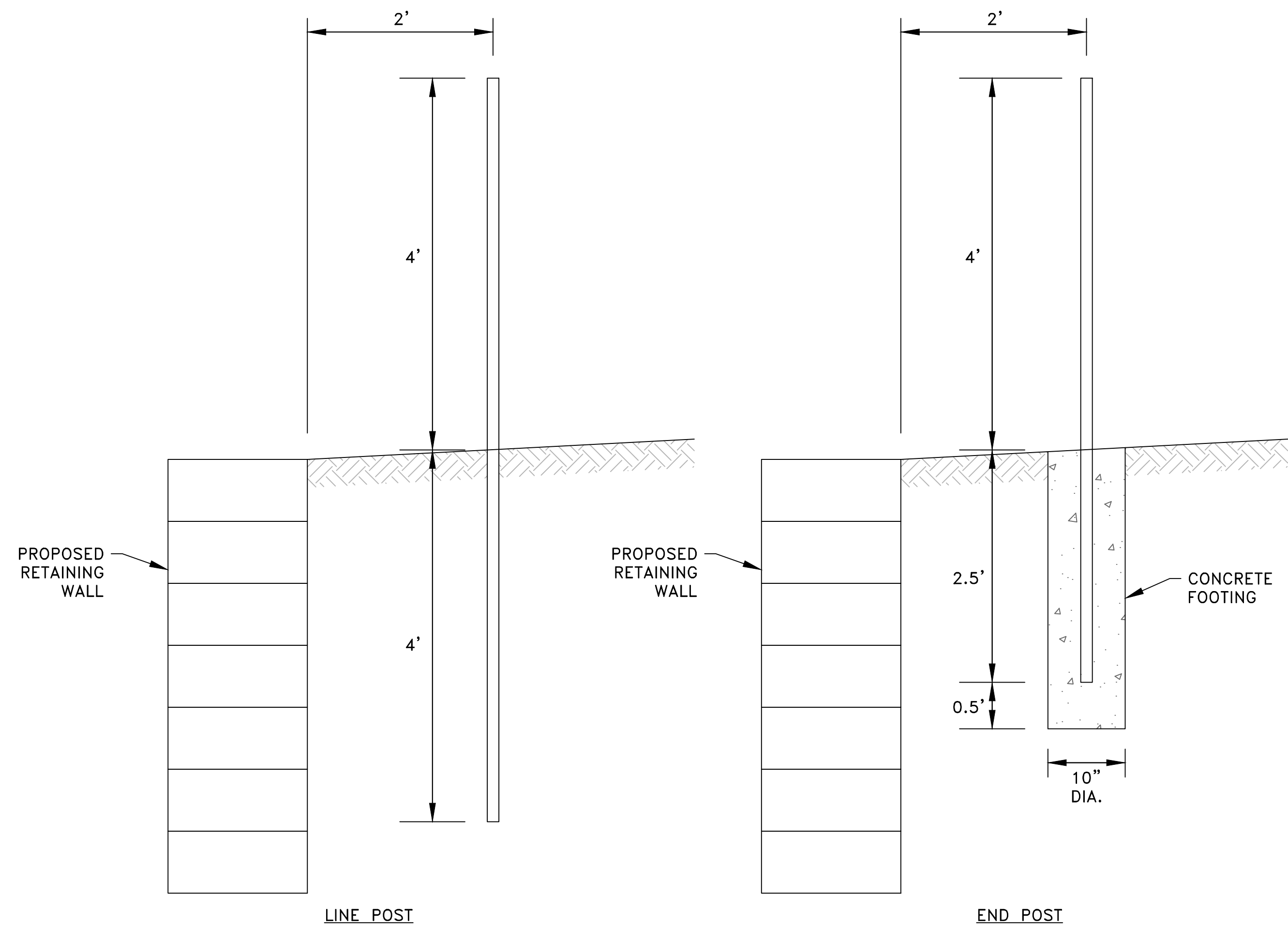
DETAILS

CITY OF ANDOVER, MINNESOTA

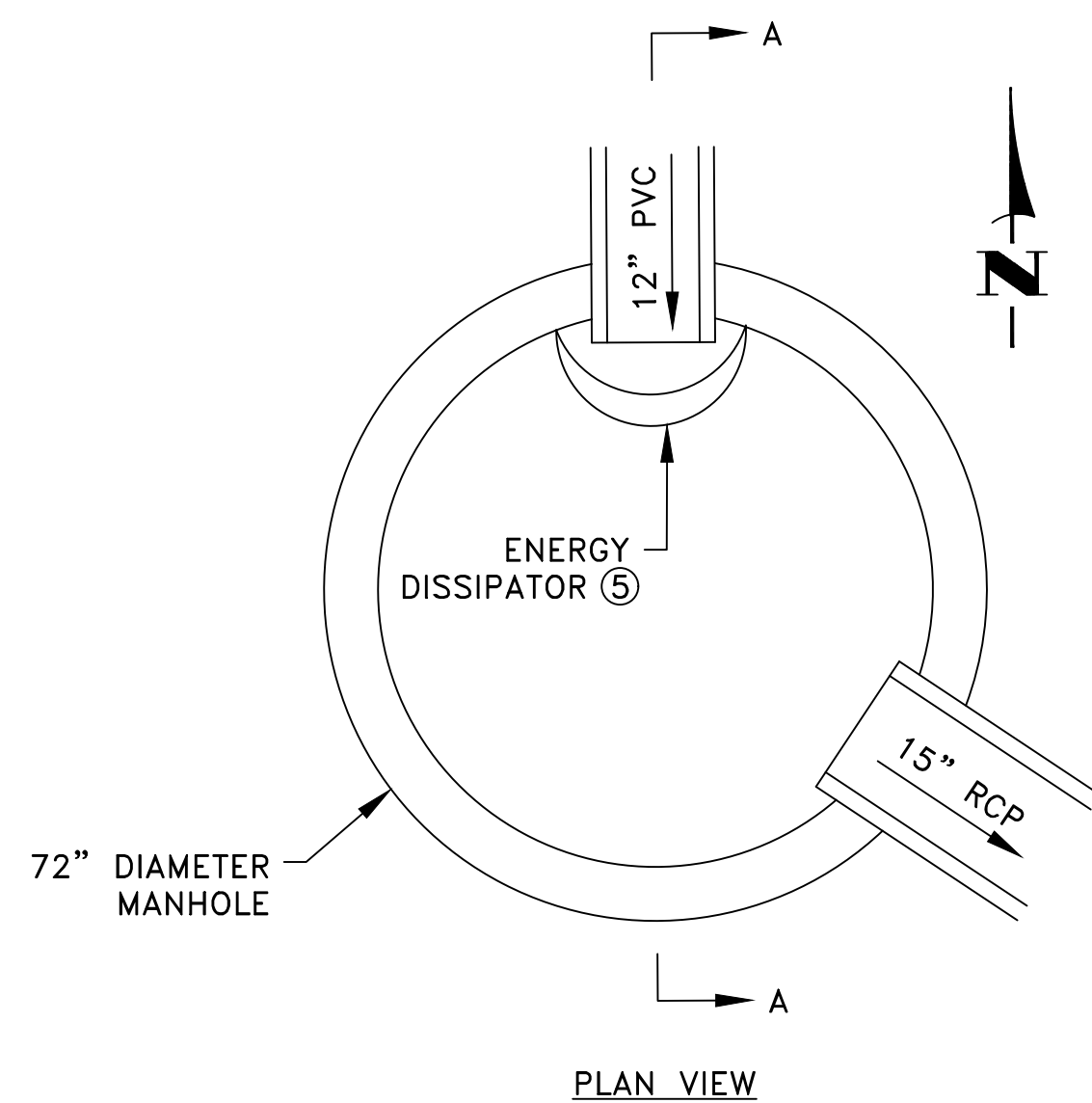
SHEET  
C3  
OF  
C21  
SHEETS

**Kinghorn**  
CONSTRUCTION

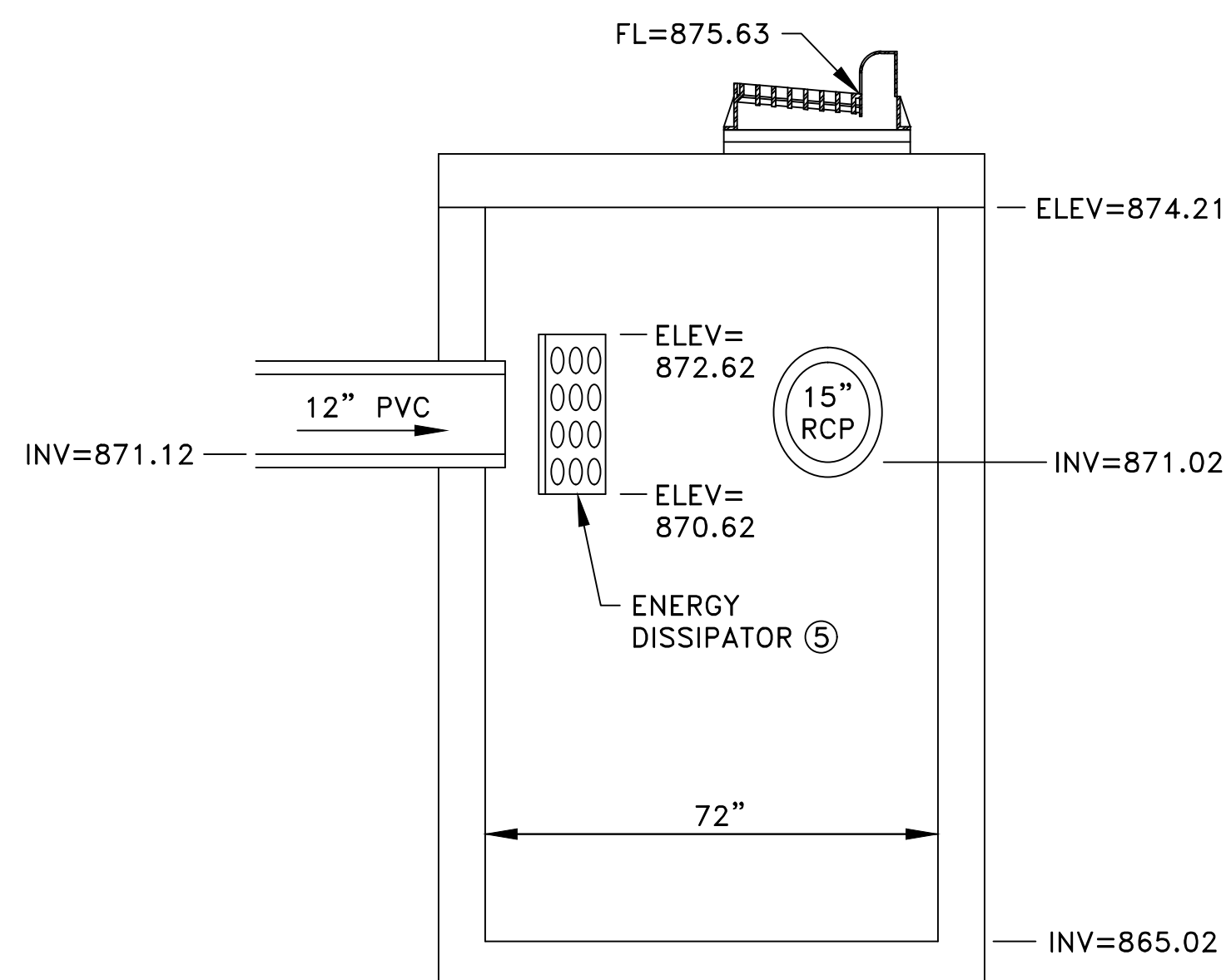
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1  
C4  
CHAIN LINK FENCE DETAIL ①②③④  
NO SCALE

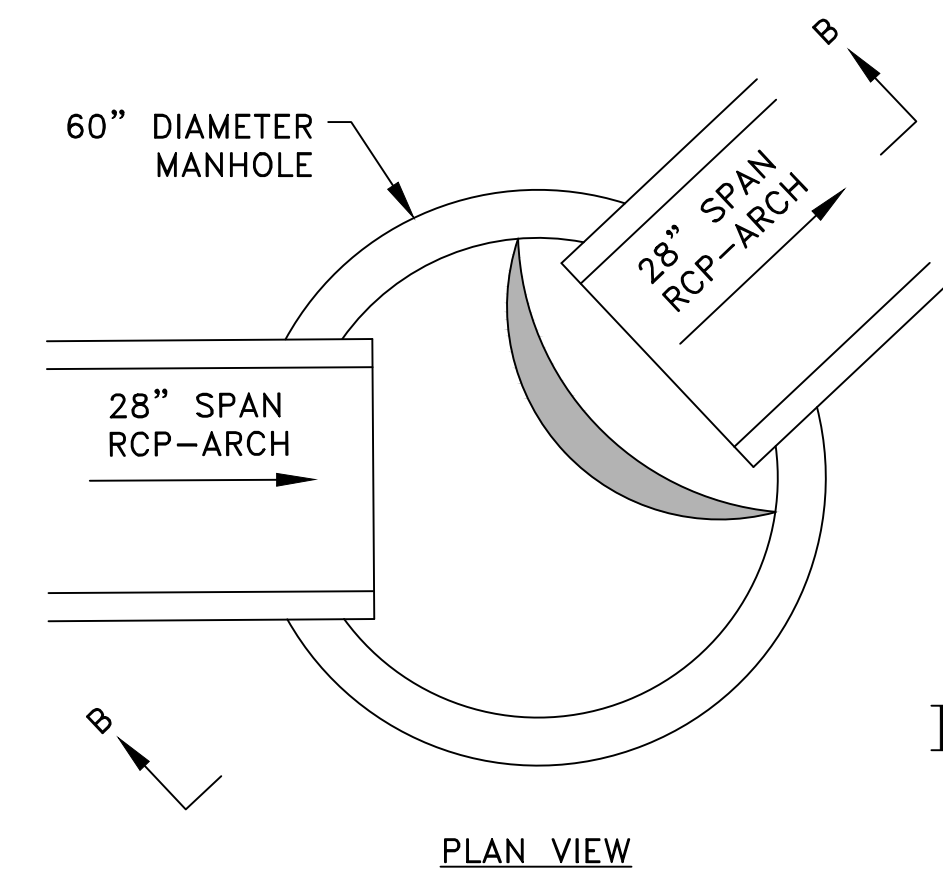


PLAN VIEW

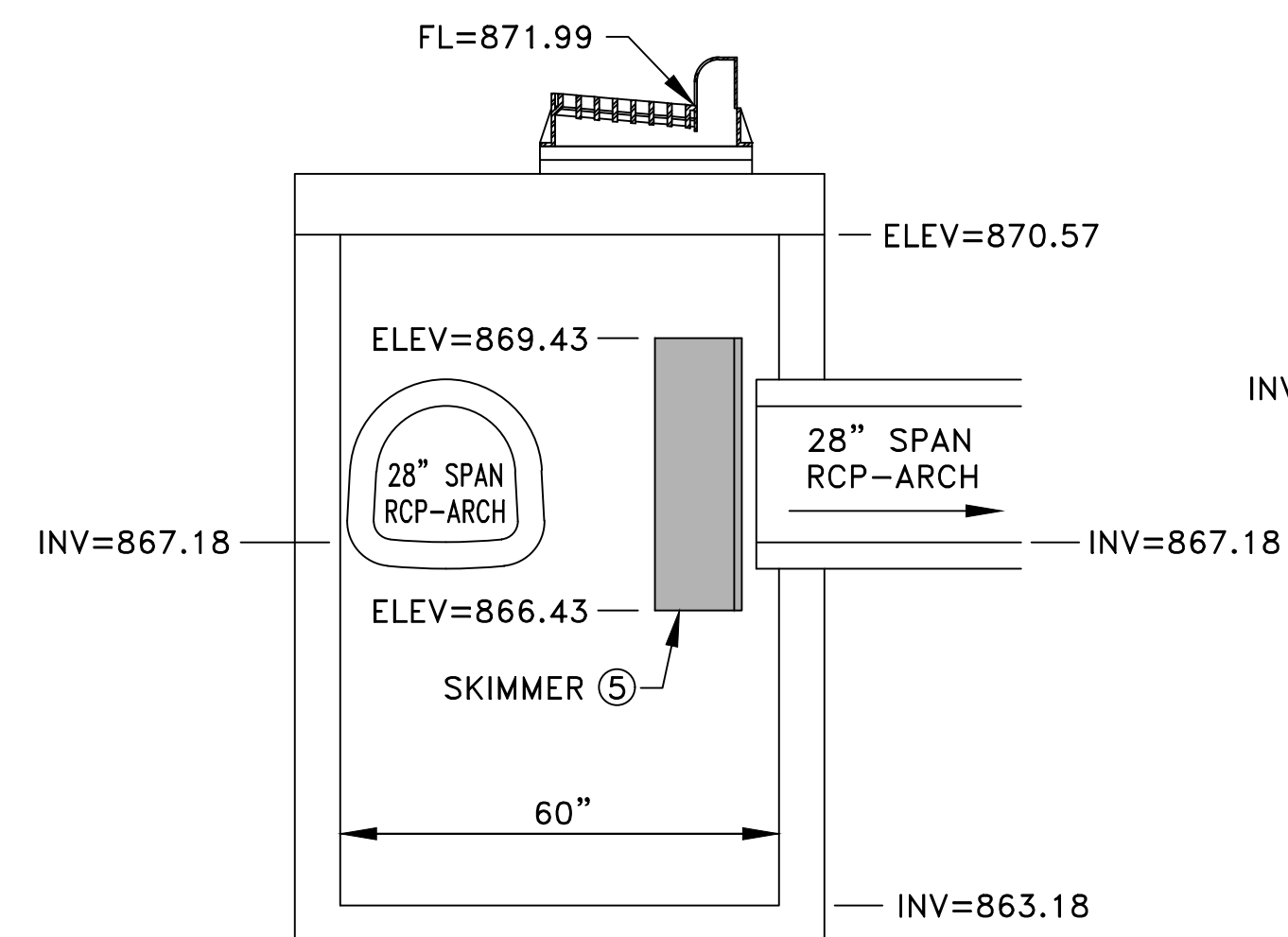


SECTION A-A

2  
C4  
ENERGY DISSIPATOR-CBMH 1  
NO SCALE

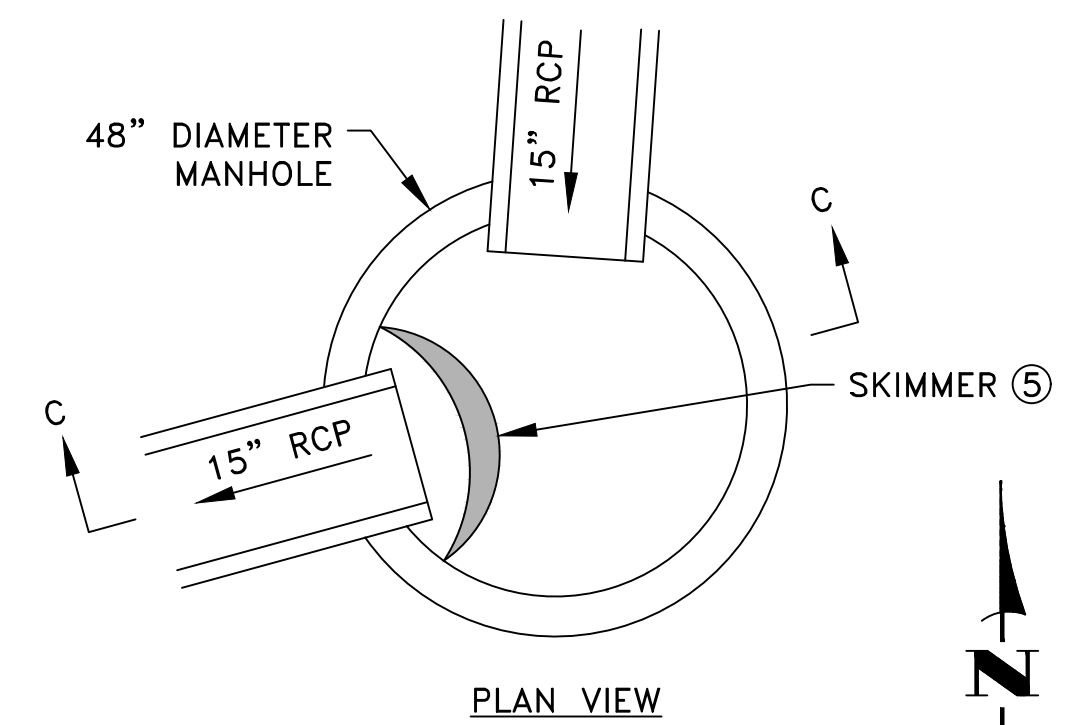


PLAN VIEW

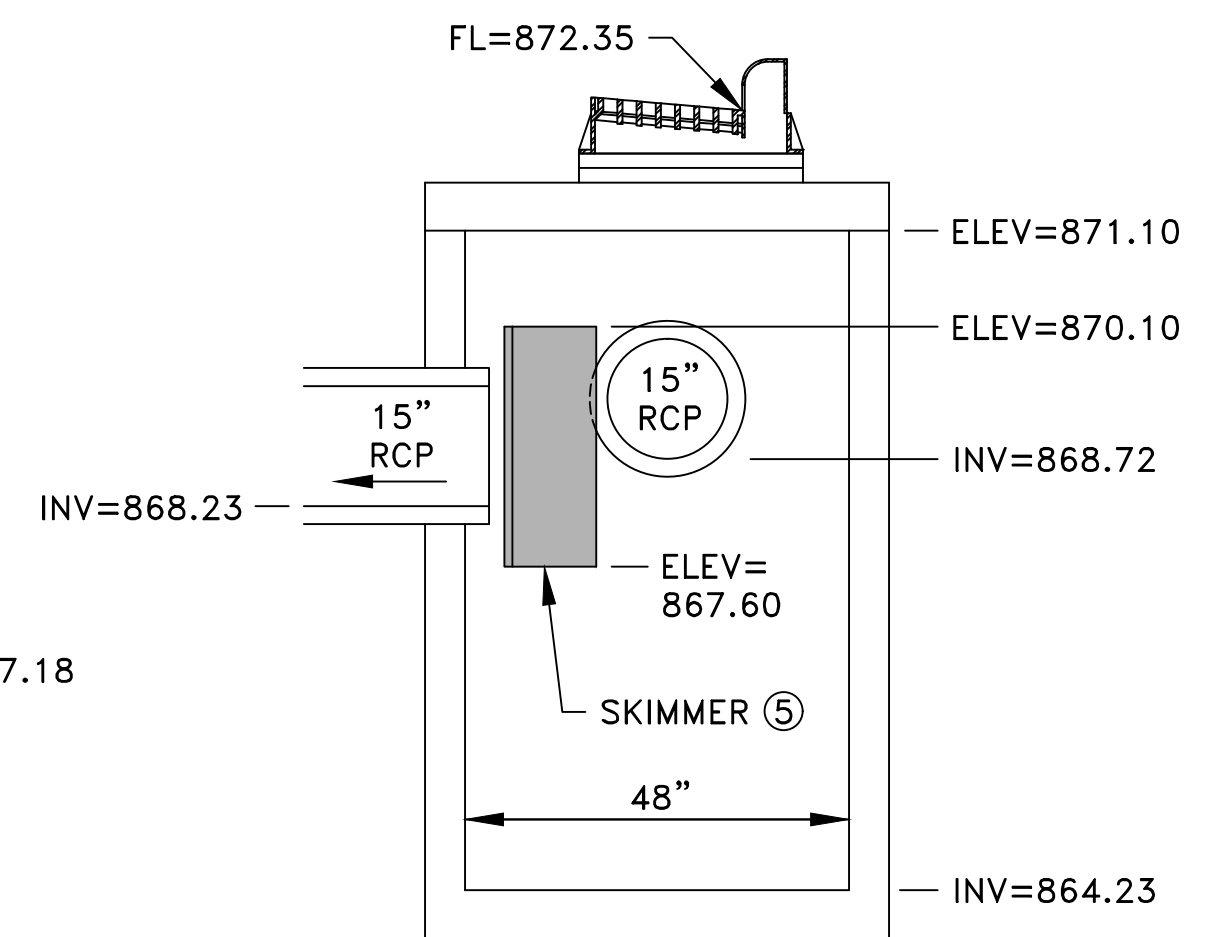


SECTION B-B

3  
C4  
SKIMMER-CBMH 6  
NO SCALE



PLAN VIEW



SECTION C-C

4  
C4  
SKIMMER-CBMH 11  
NO SCALE

- REFERENCE NOTES:
- ① FENCE SHALL BE CONSTRUCTED PER MN/DOT STANDARD PLATE 9322.
  - ② CHAIN LINK FENCE MATERIAL SHALL BE BLACK GALVANIZED STEEL.
  - ③ FENCE SHALL BE COORDINATED WITH THE RETAINING WALL DESIGN.
  - ④ FENCE IS REQUIRED WHERE THE EXPOSED HEIGHT OF THE RETAINING WALL IS GREATER THAN 30".
  - ⑤ ENERGY DISSIPATOR AND SKIMMER SHALL BE "THE PRESERVER" AS MANUFACTURED BY MOMENTUM ENVIRONMENTAL OR APPROVED EQUAL.

**Kinghorn**  
CONSTRUCTION

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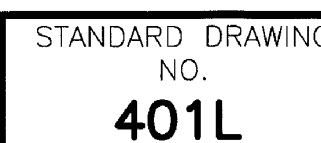
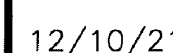
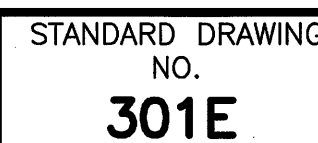
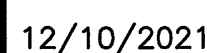
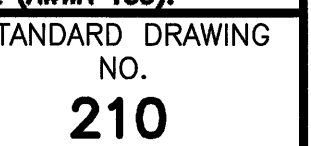
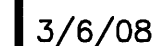
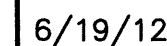
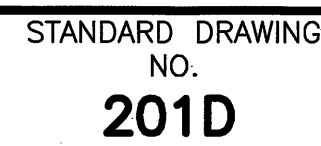
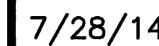
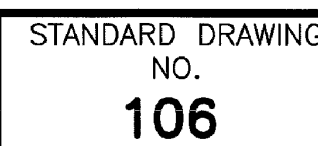
DETAILS  
CITY OF ANDOVER, MINNESOTA

SHEET  
C4  
OF  
C21  
SHEETS

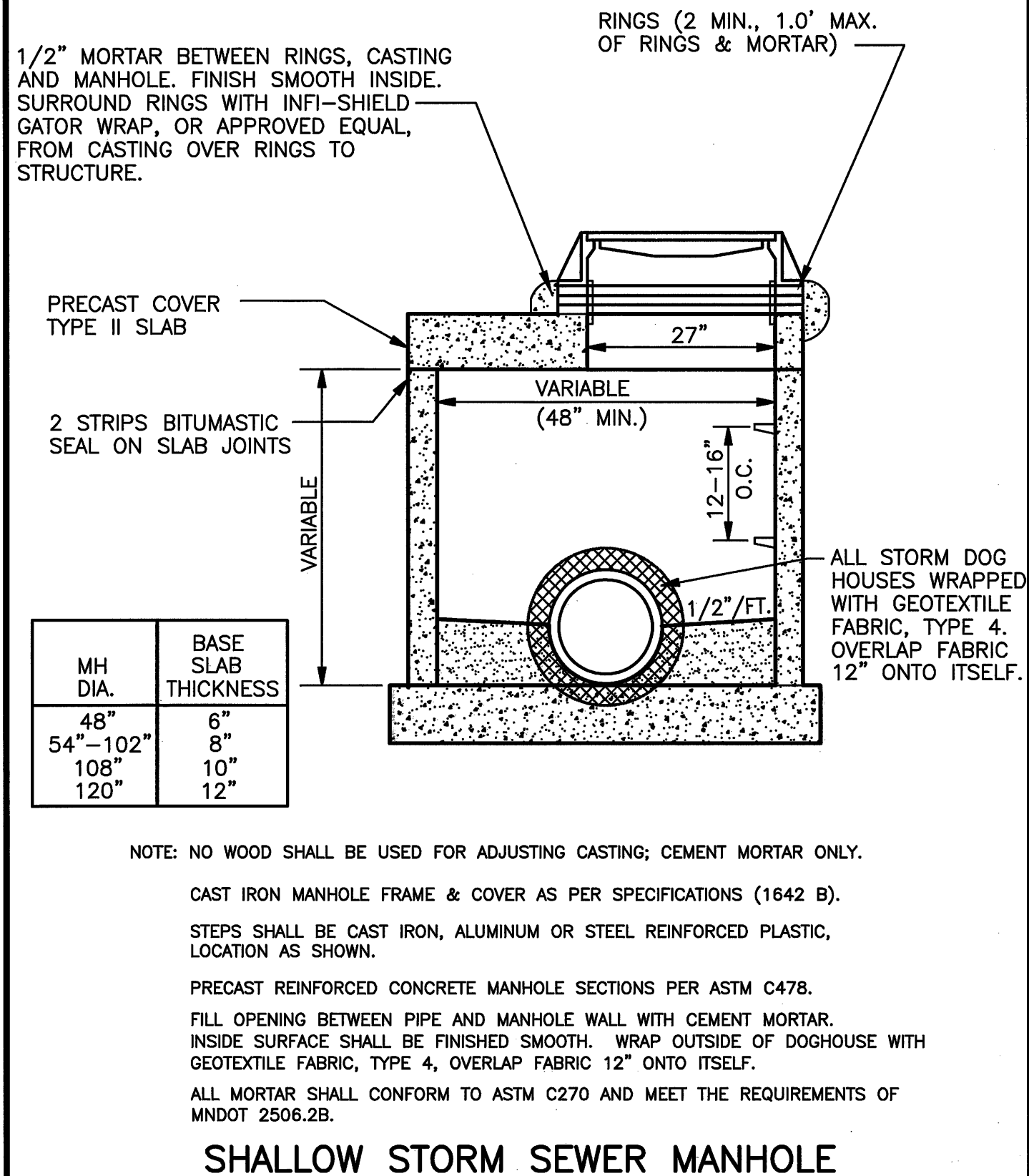


NOMINAL PIPE DIA.	TRENCH WIDTH
12"	30"
15"	35"
18"	40"
24"	47"
30"	57"
36"	65"
42"	72"
48"	80"
60"	87"

- 2/25/10



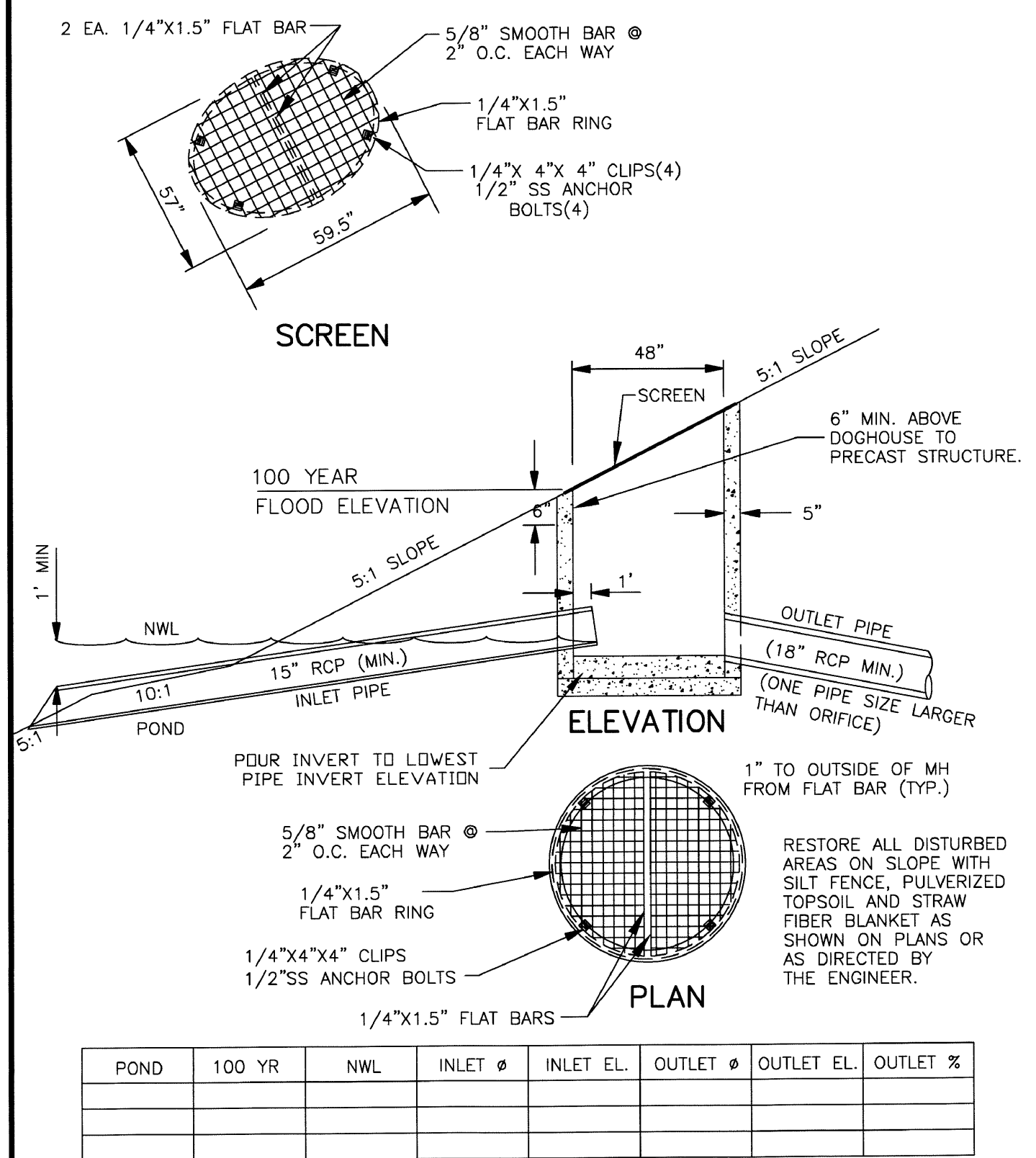




12/10/21

**CITY OF ANDOVER**

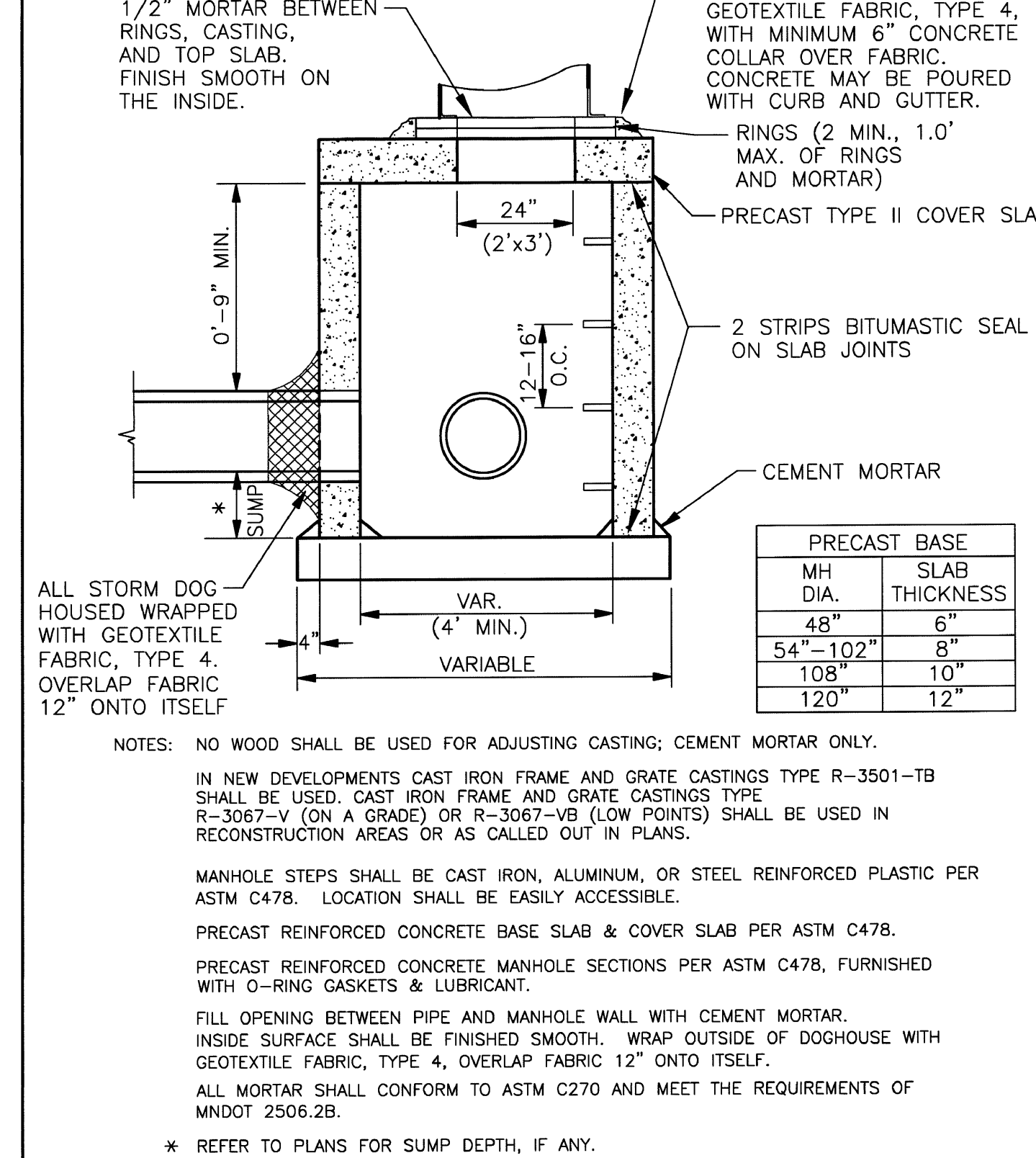
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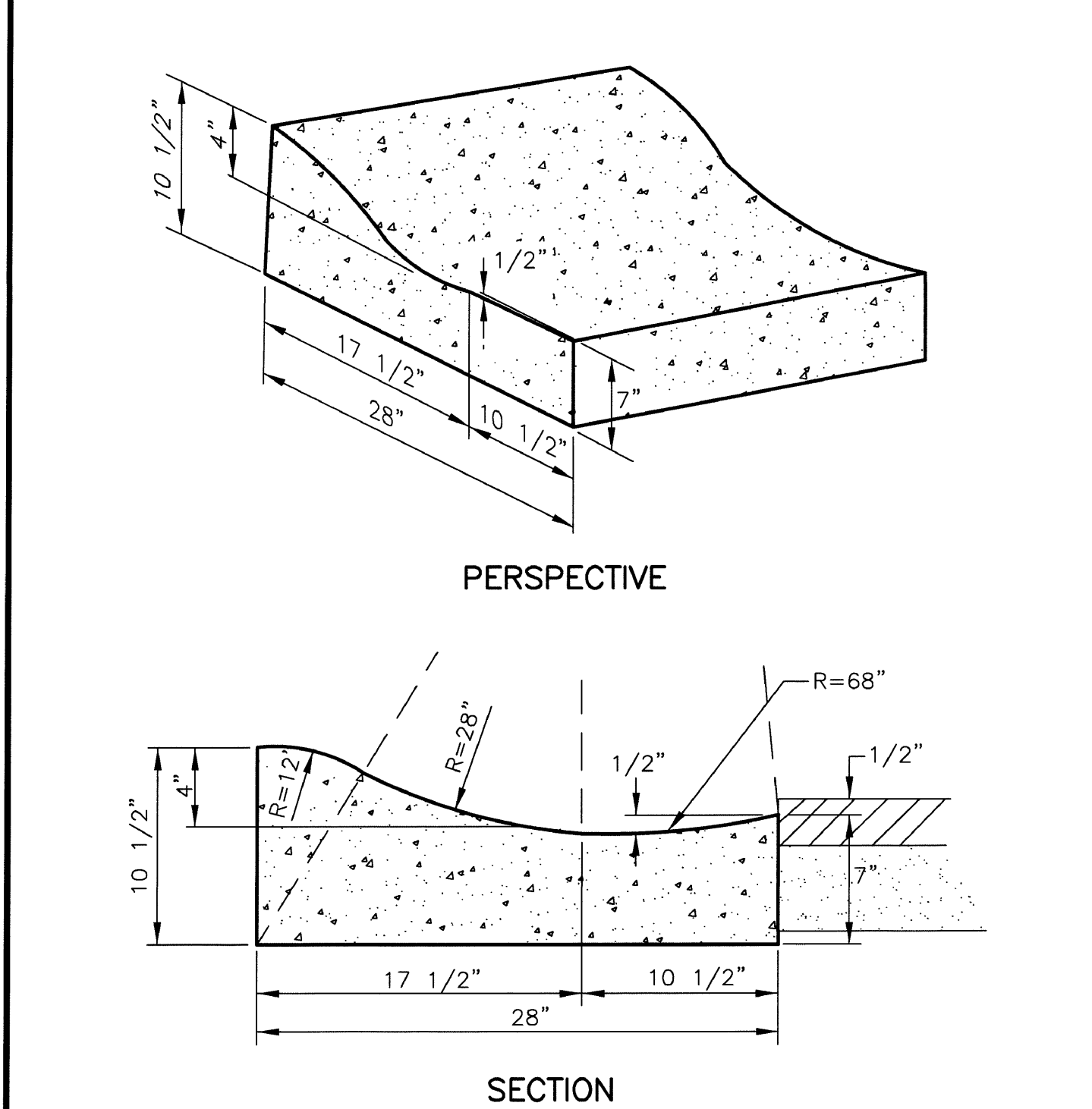
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1/10/20

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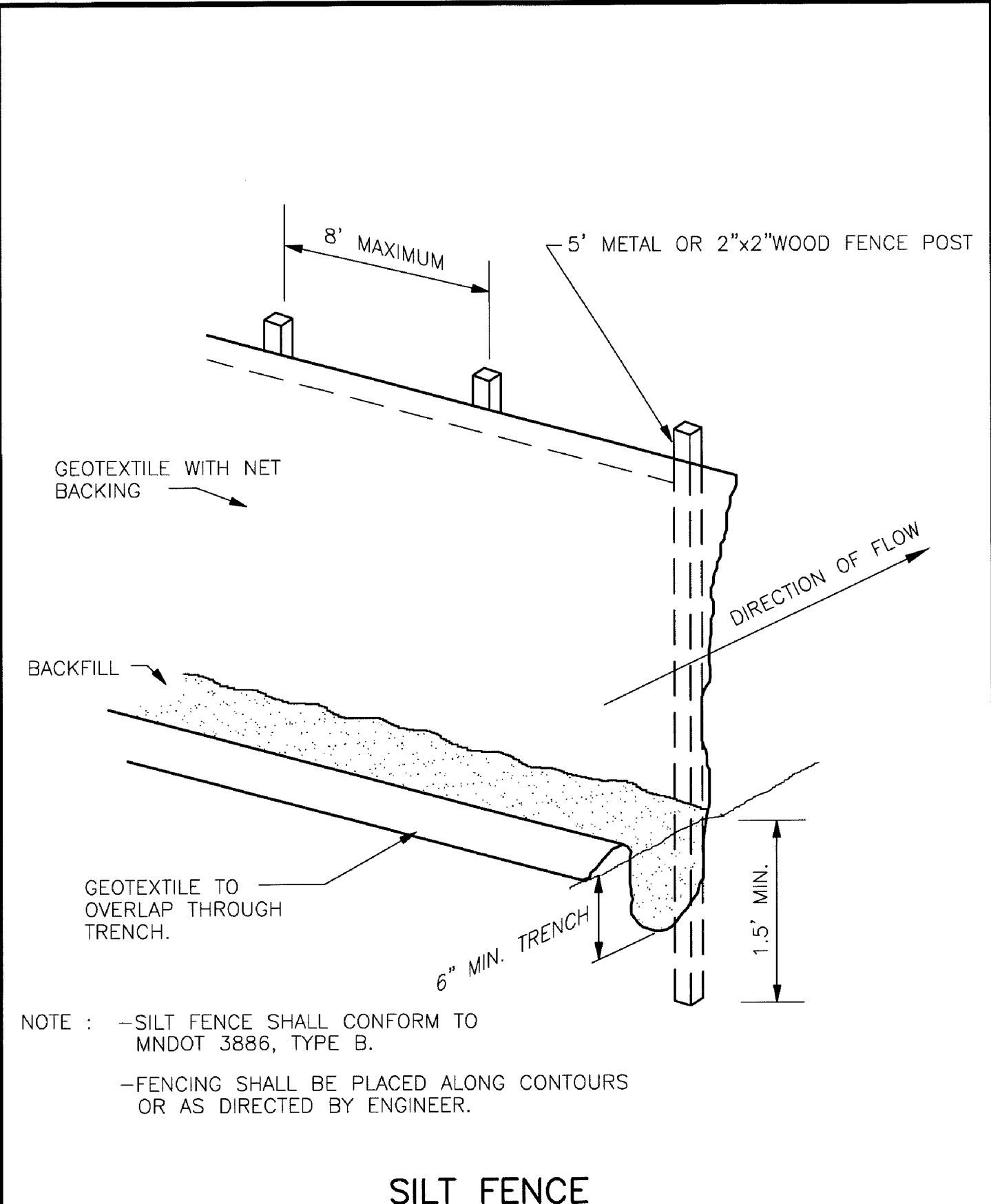
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12/26/00

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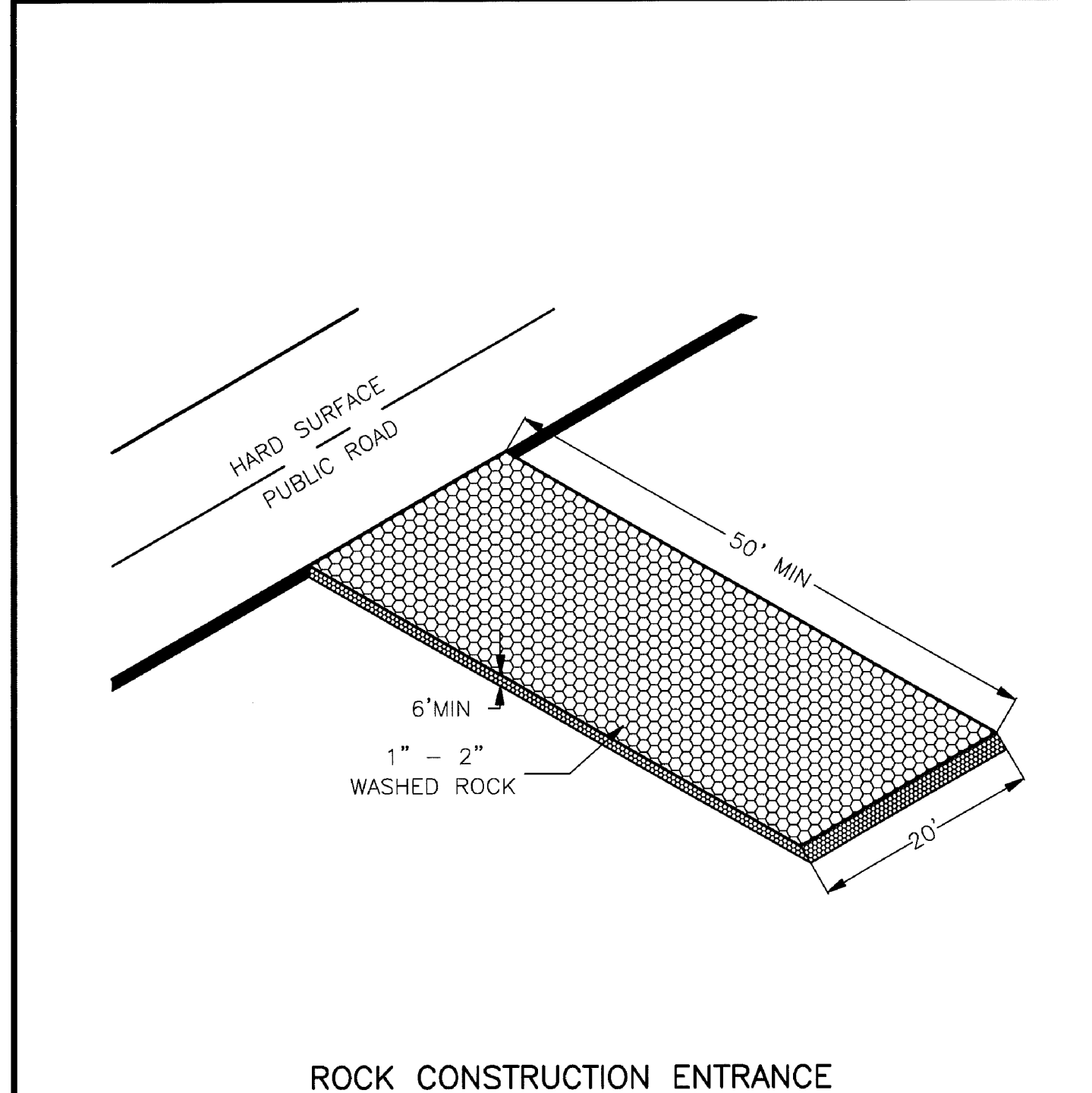
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12/26/00

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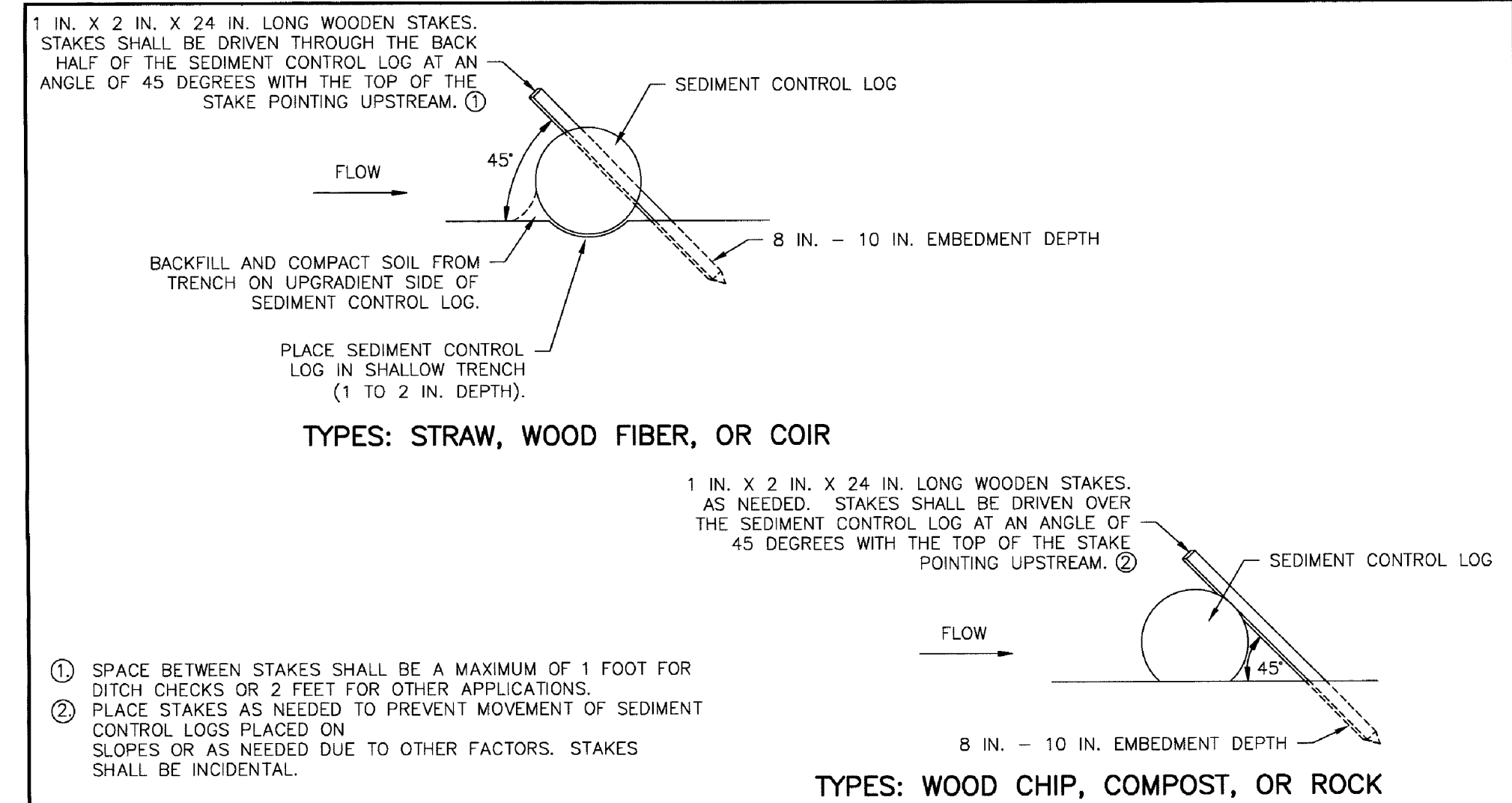
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12/26/00

**CITY OF ANDOVER**

STANDARD DRAWING NO. **605**



1/29/20

**CITY OF ANDOVER**

STANDARD DRAWING NO. **602**

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.

*Timothy A. Eggen*

Timothy A. Eggen, P.E.

Date 5/16/25 Lic. No. 43362

DESIGNED BY: TAE

DRAWN BY: TAE

CHECKED BY: CJJ



**Hakanson Anderson**

Civil Engineers and Land Surveyors

3601 Thurston Ave., Anoka, Minnesota 55303

763-427-5860 FAX 763-427-0520

www.hakanson-anderson.com

MEADOW CREEK CHURCH

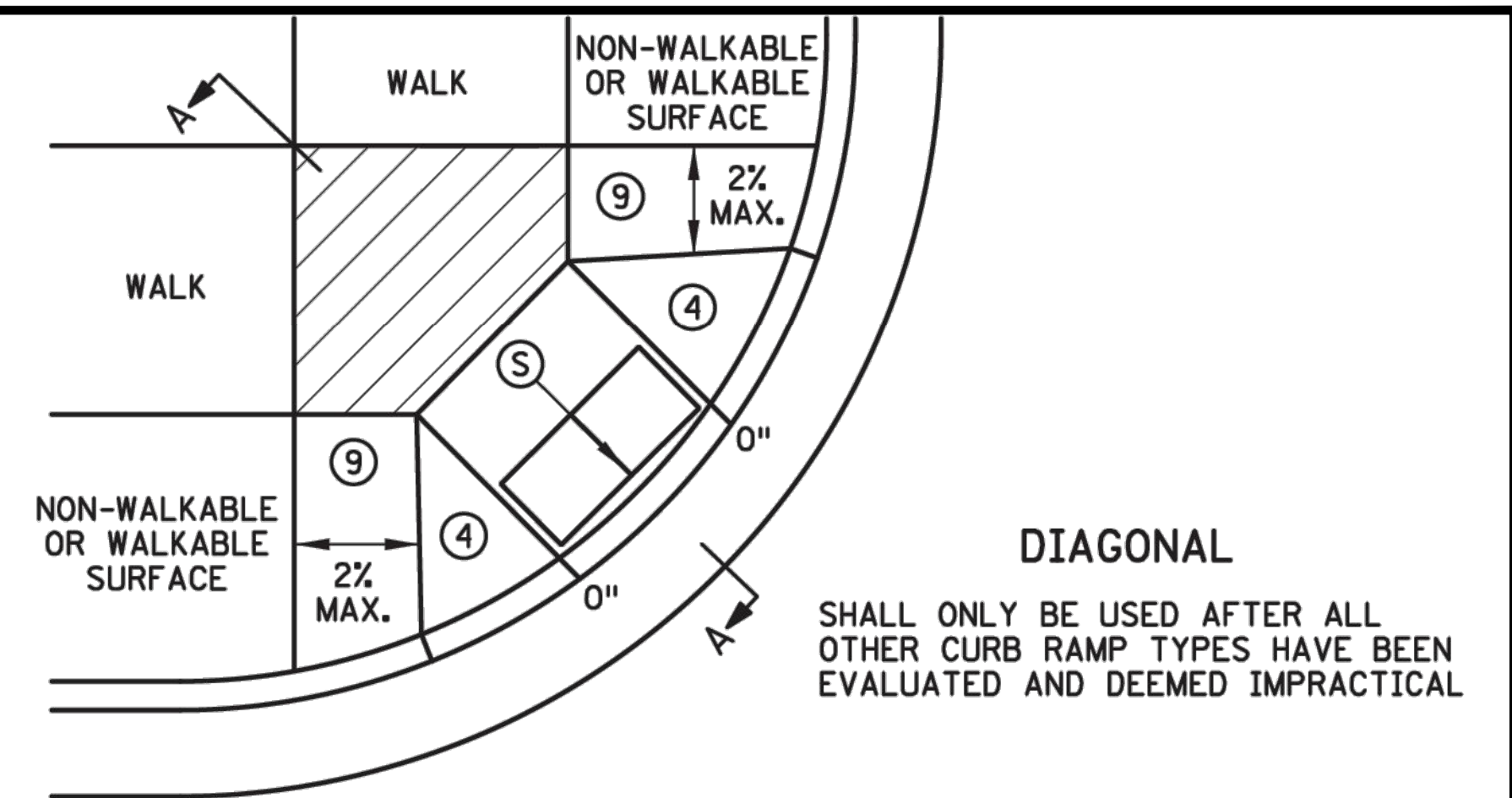
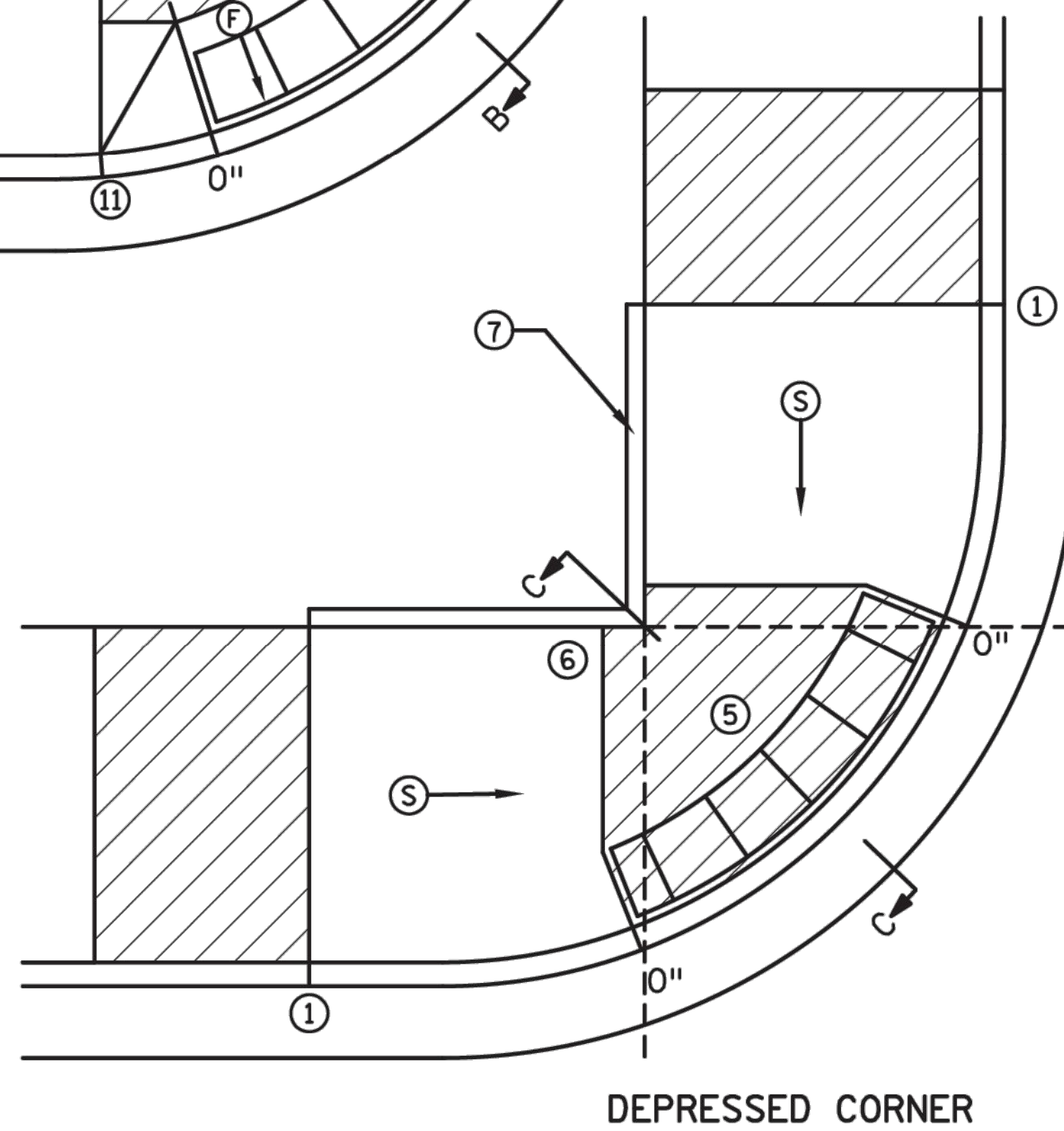
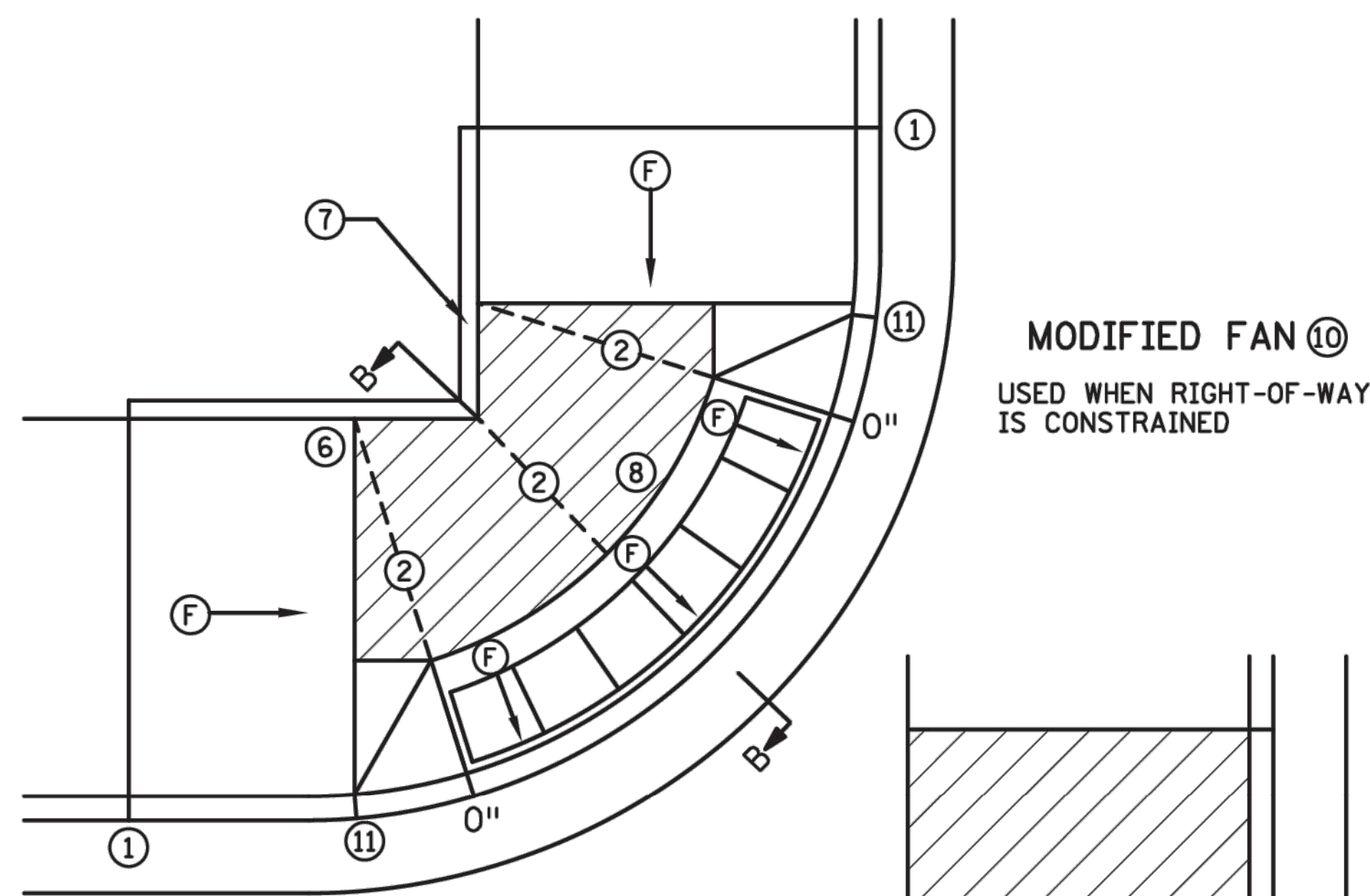
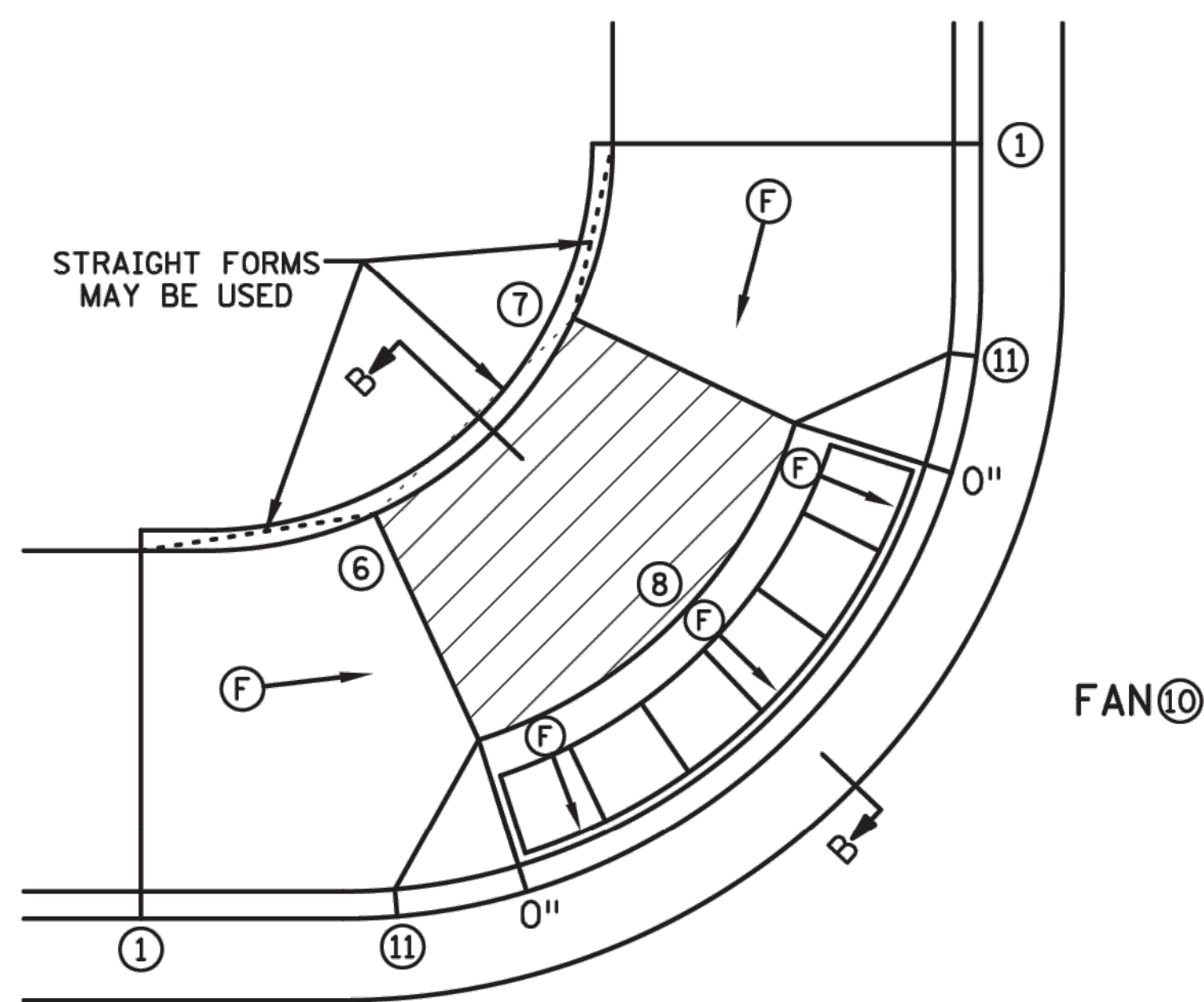
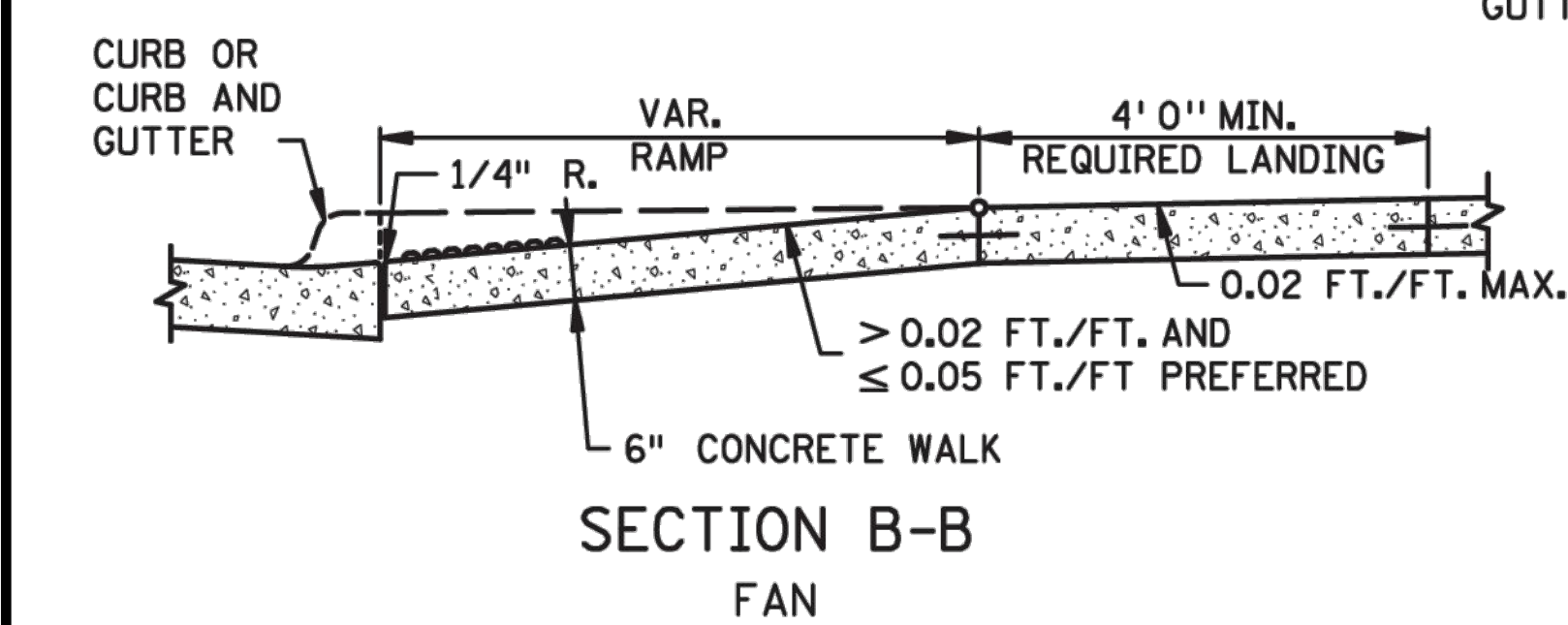
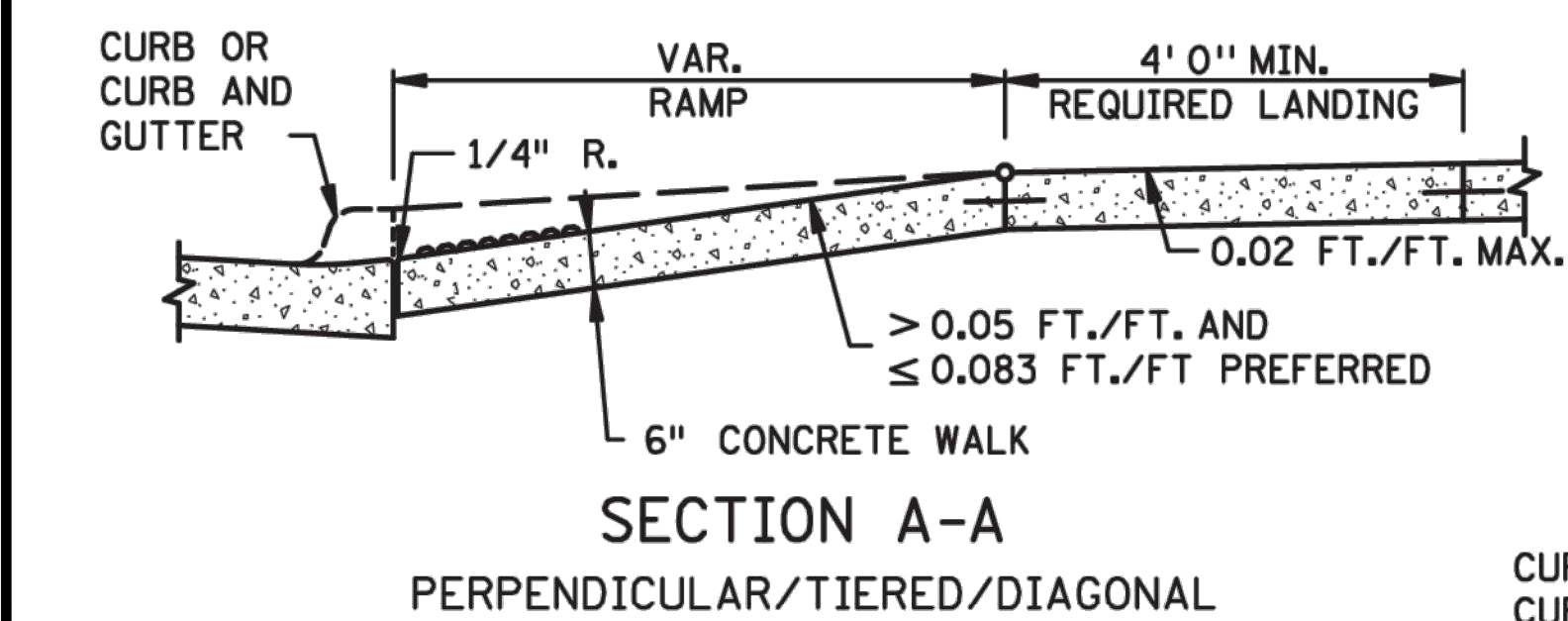
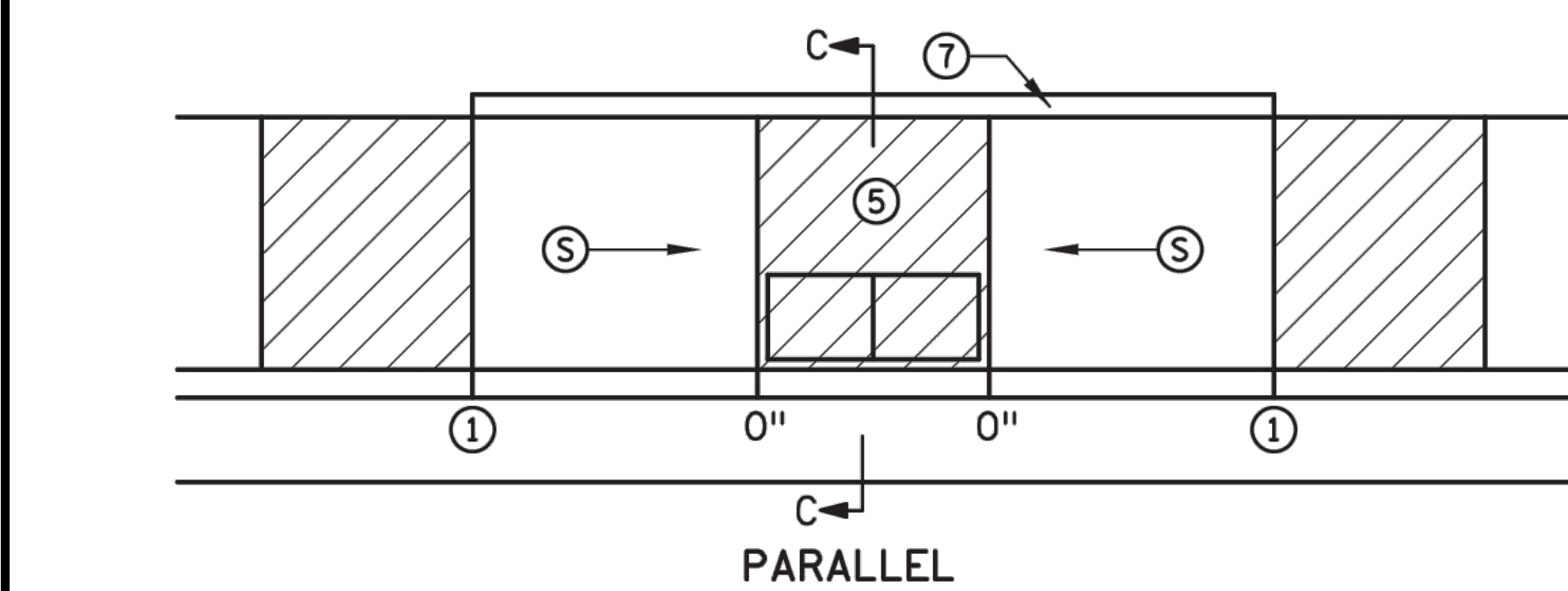
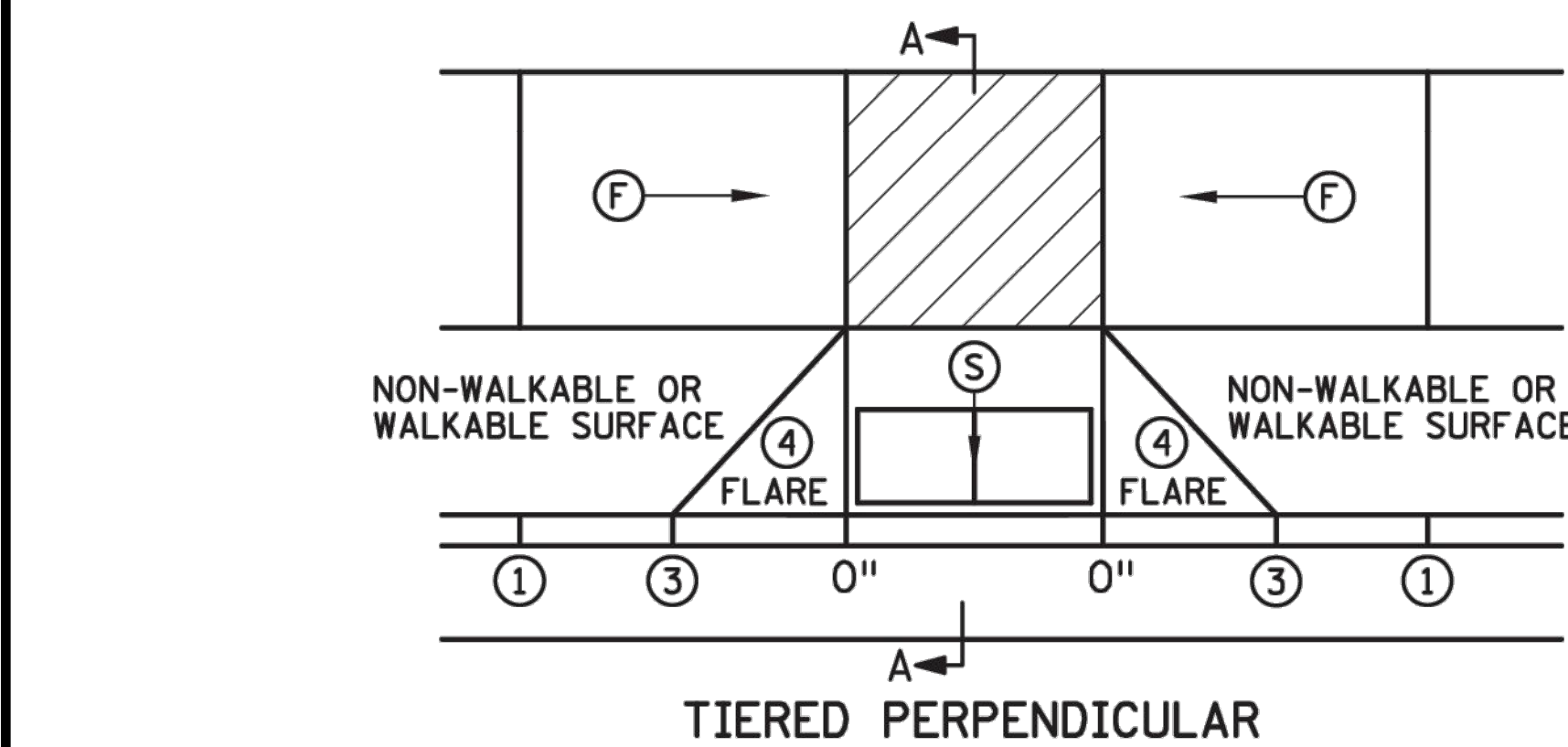
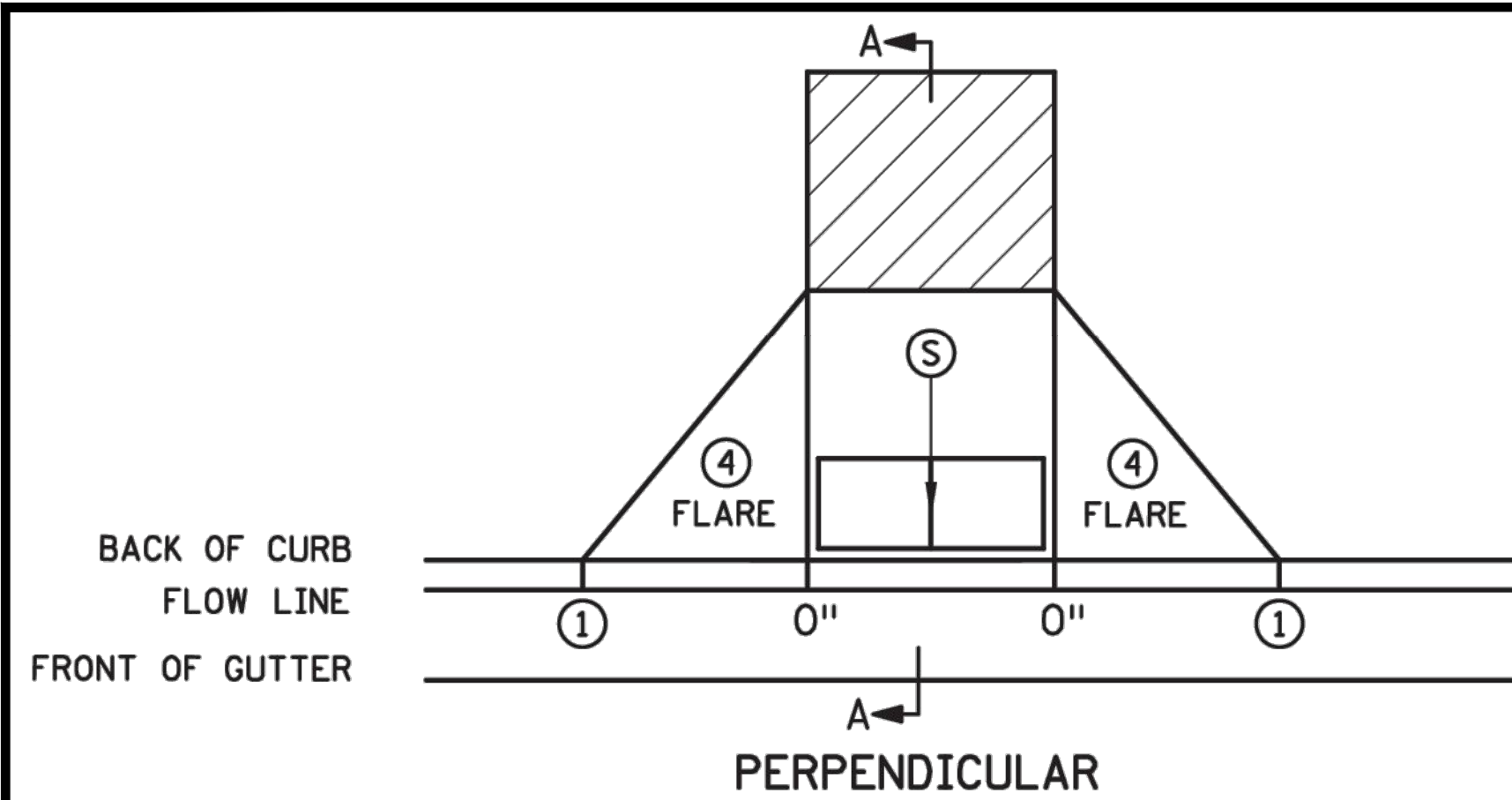
**Kinghorn** CONSTRUCTION

DETAILS

CITY OF ANDOVER, MINNESOTA

SHEET C6 OF C21 SHEETS







#### NOTES:

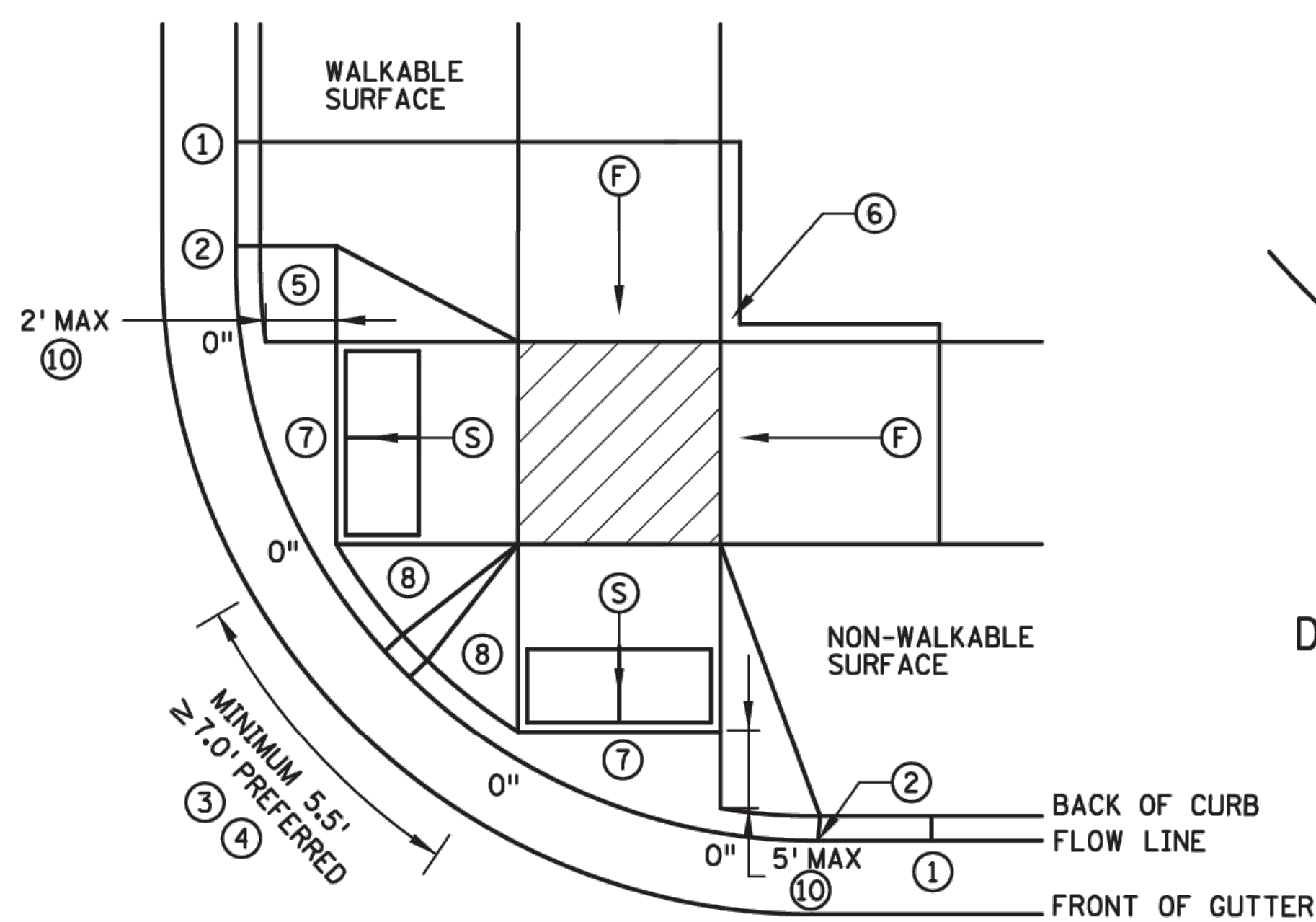
- LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.
- INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 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.

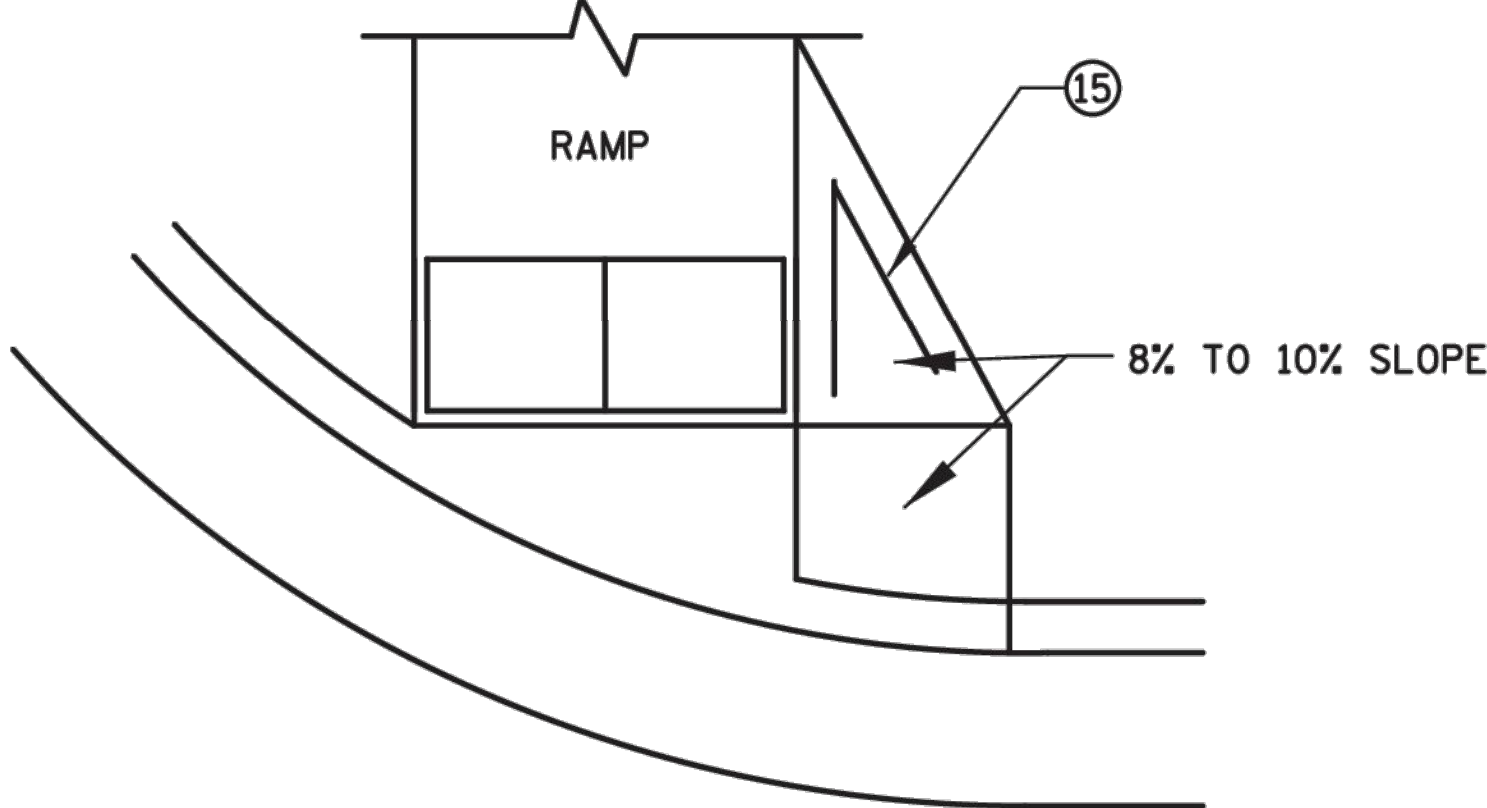
LEGEND	
THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.	
(S)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.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

LEAD EXPERT OFFICE	JEFFREY PERKINS OPERATIONS DIVISION				PEDESTRIAN CURB RAMP DETAILS	APPROVED: 11-04-2021 REVISED:	 THOMAS STYRBICKI STATE DESIGN ENGINEER	STANDARD PLAN 5-297.250	1 OF 6
	 DEPARTMENT OF TRANSPORTATION					STANDARD PLAN	STATE PROJ. NO.	SHEET NO.	C7
							TRUNK HWY.	TOTAL SHEETS	C21



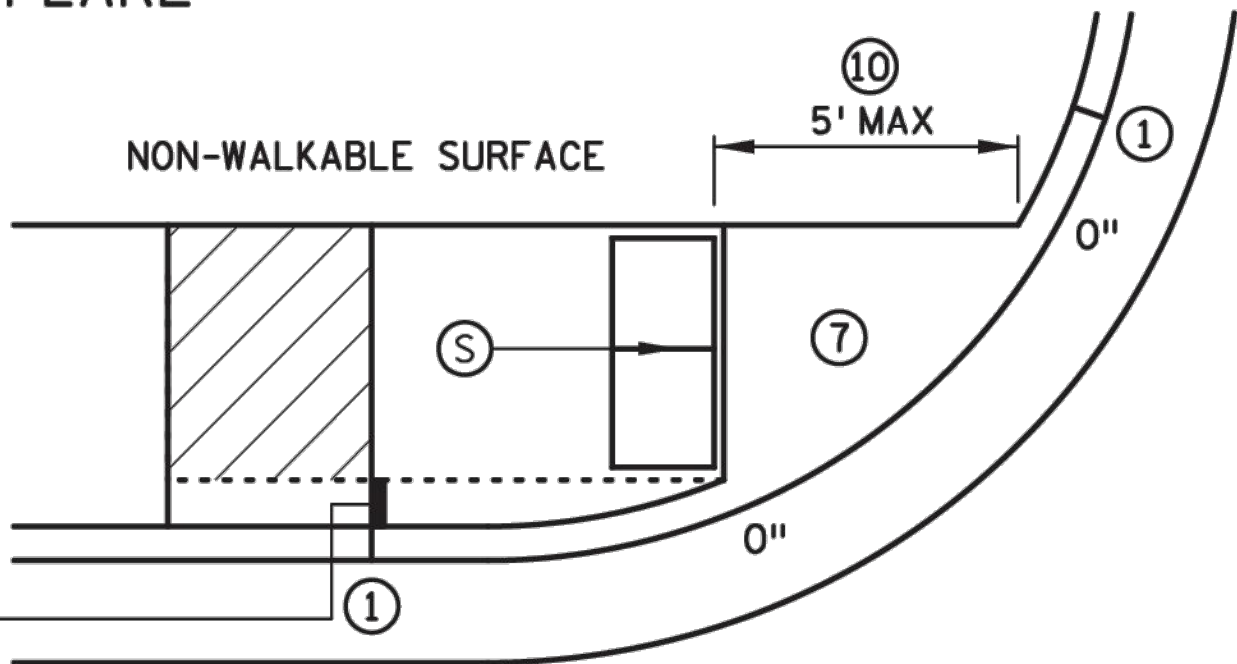


COMBINED DIRECTIONAL

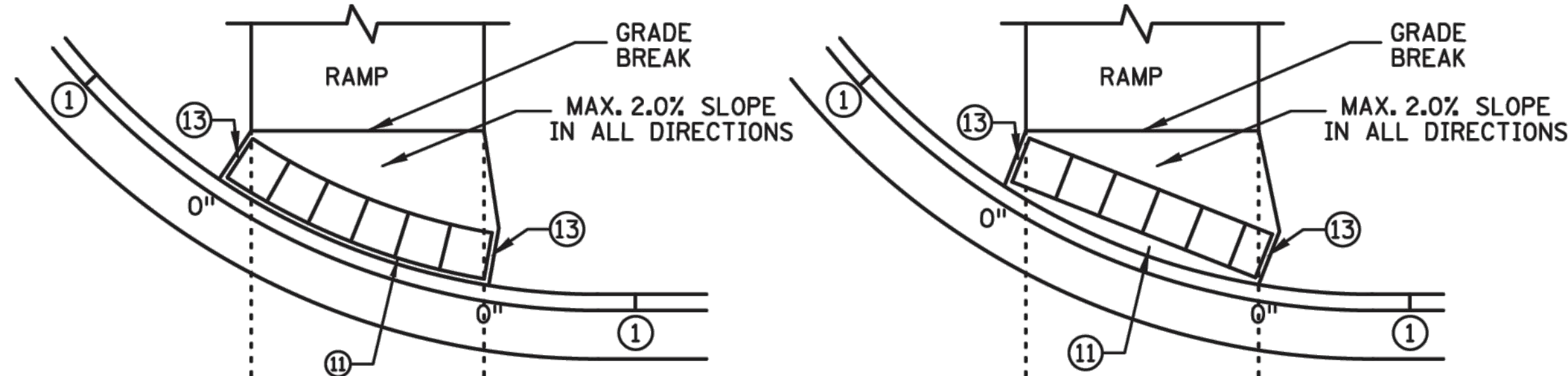


DIRECTIONAL RAMP WALKABLE FLARE

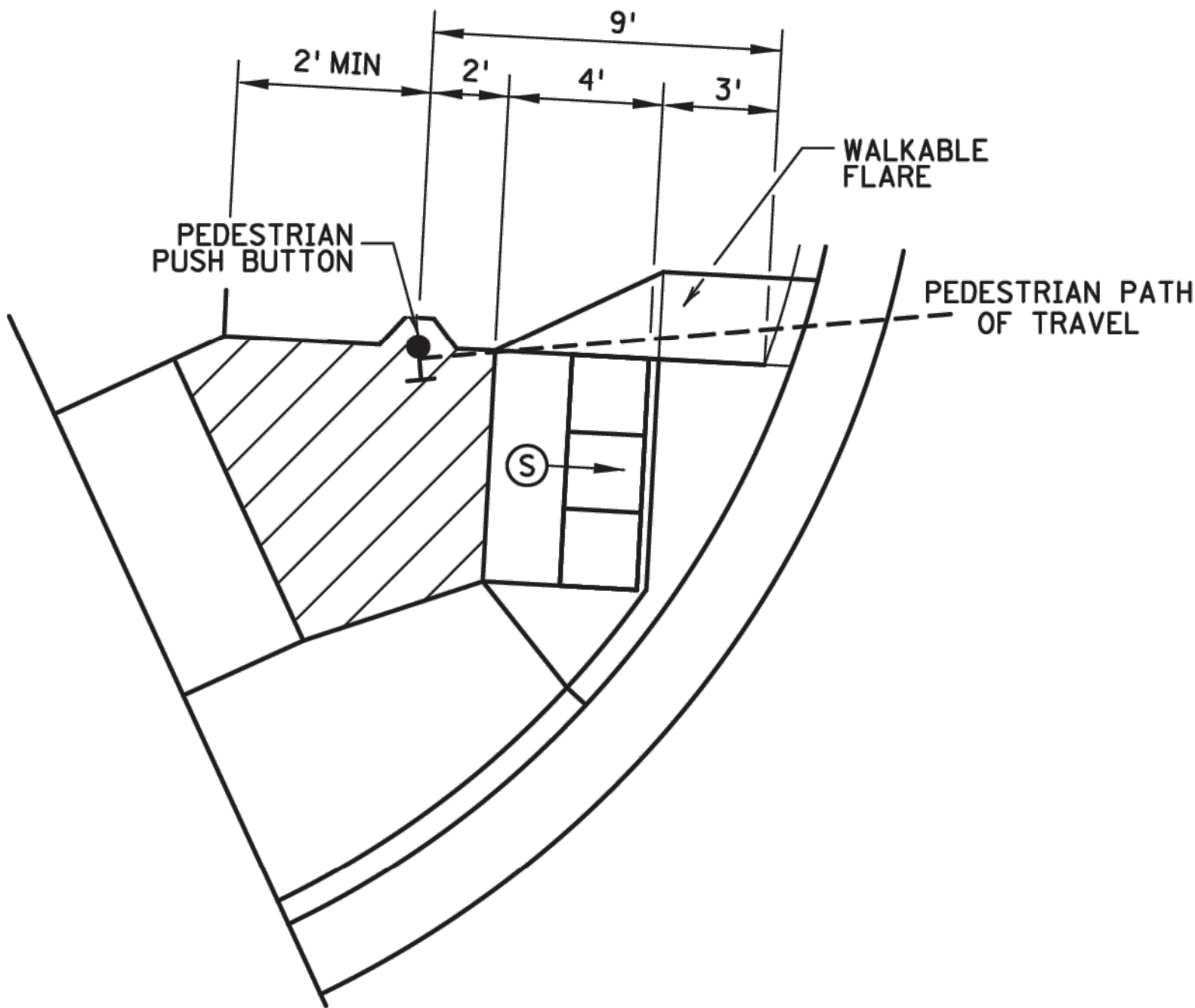
IF NON-CONCRETE BLVD. IS CONSTRUCTED AND IS LESS THAN 2' IN WIDTH AT TOP OF CURB TRANSITION, PAVE CONCRETE RAMP WIDTH TO ADJACENT BACK OF CURB.



STANDARD ONE-WAY DIRECTIONAL ⑨

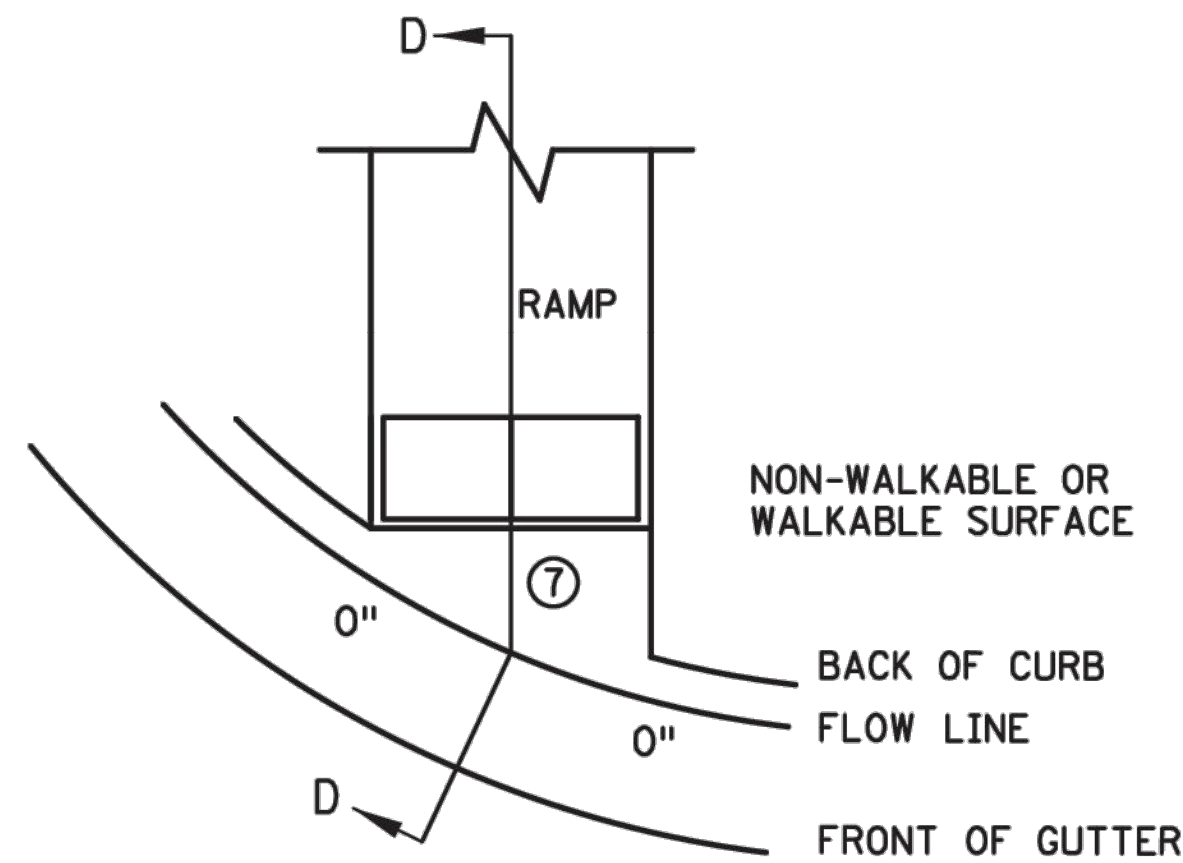


ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB

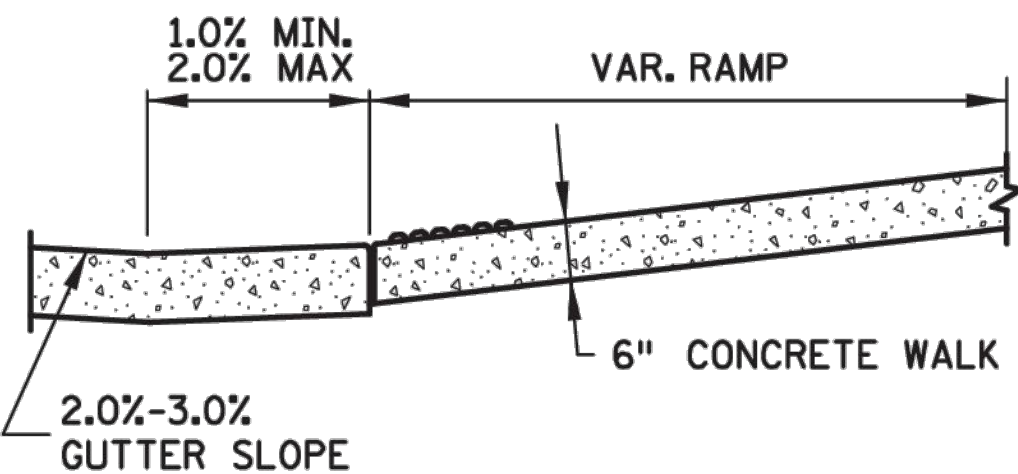


SEMI-DIRECTIONAL RAMP ③④⑨

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)



CURB FOR DIRECTIONAL RAMPS ⑭



SECTION D-D

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%.

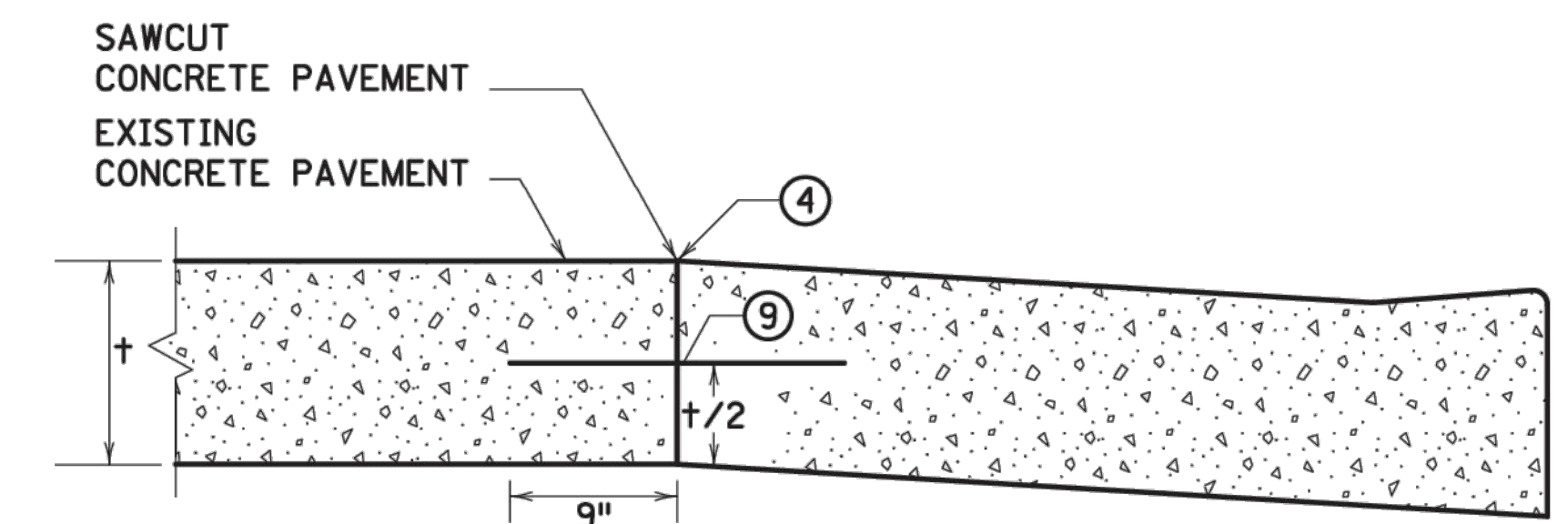
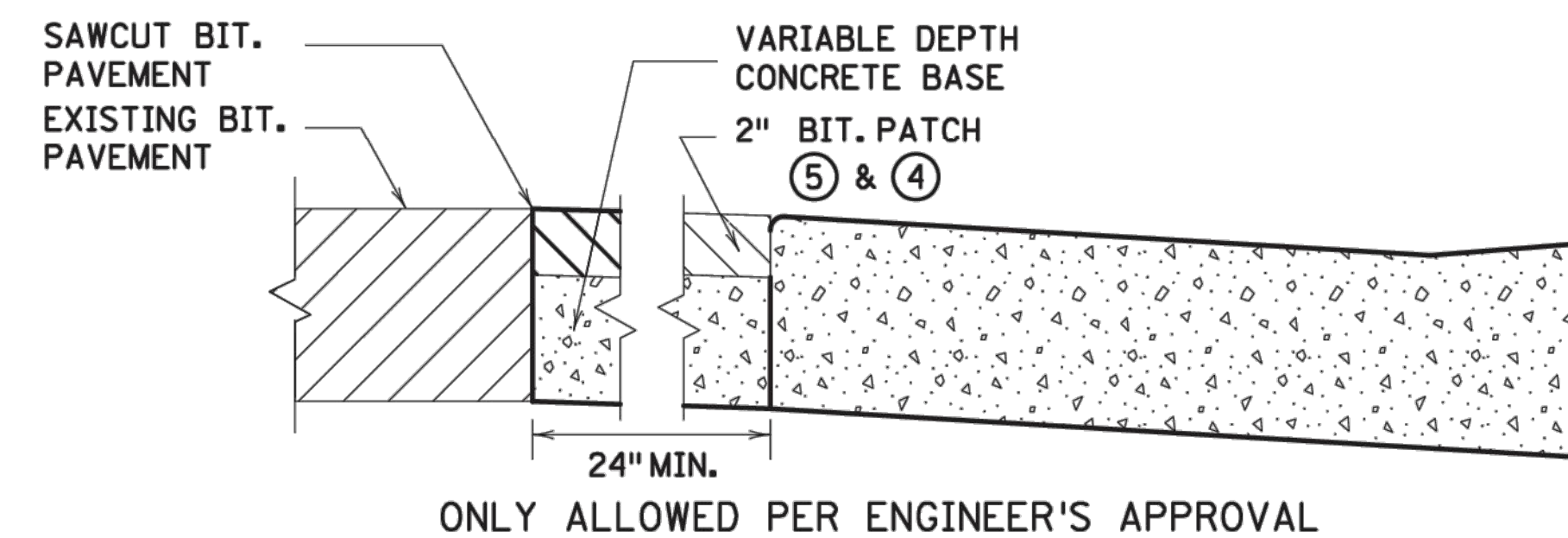
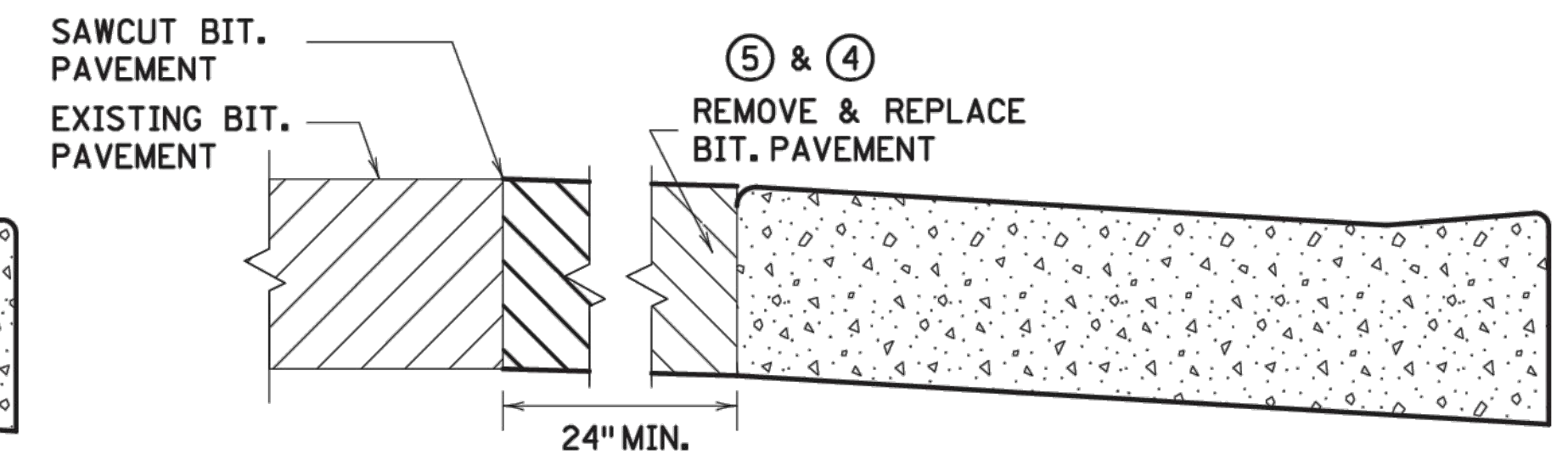
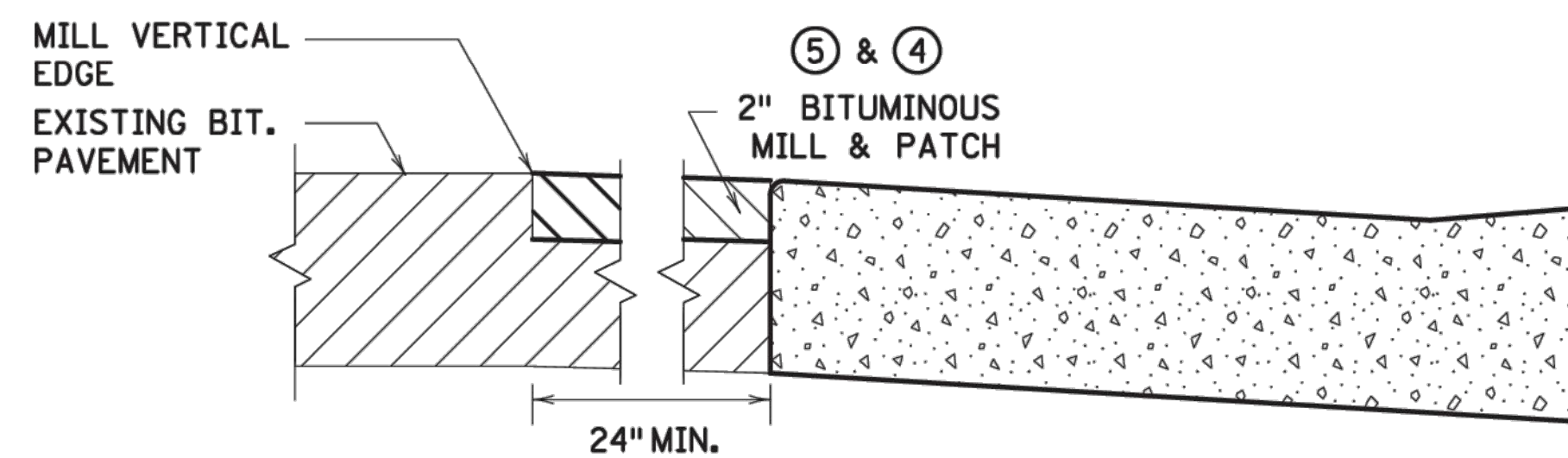
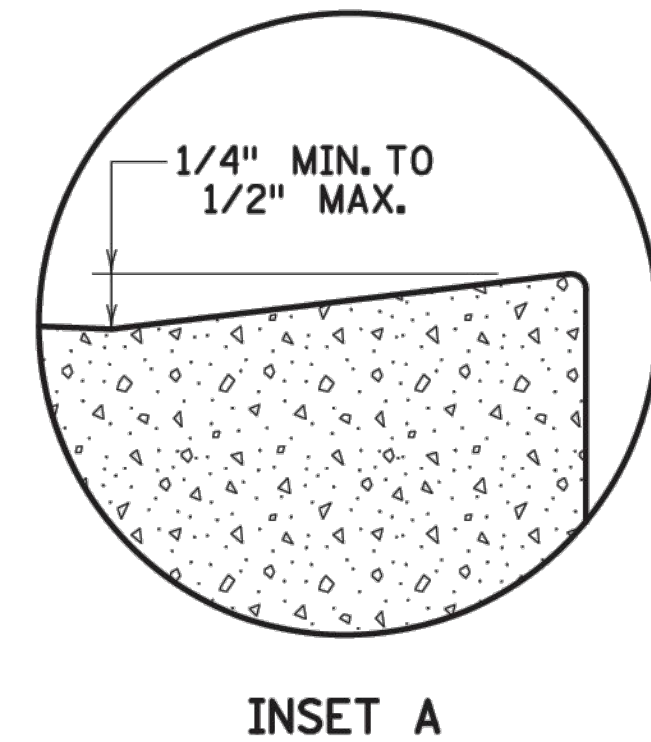
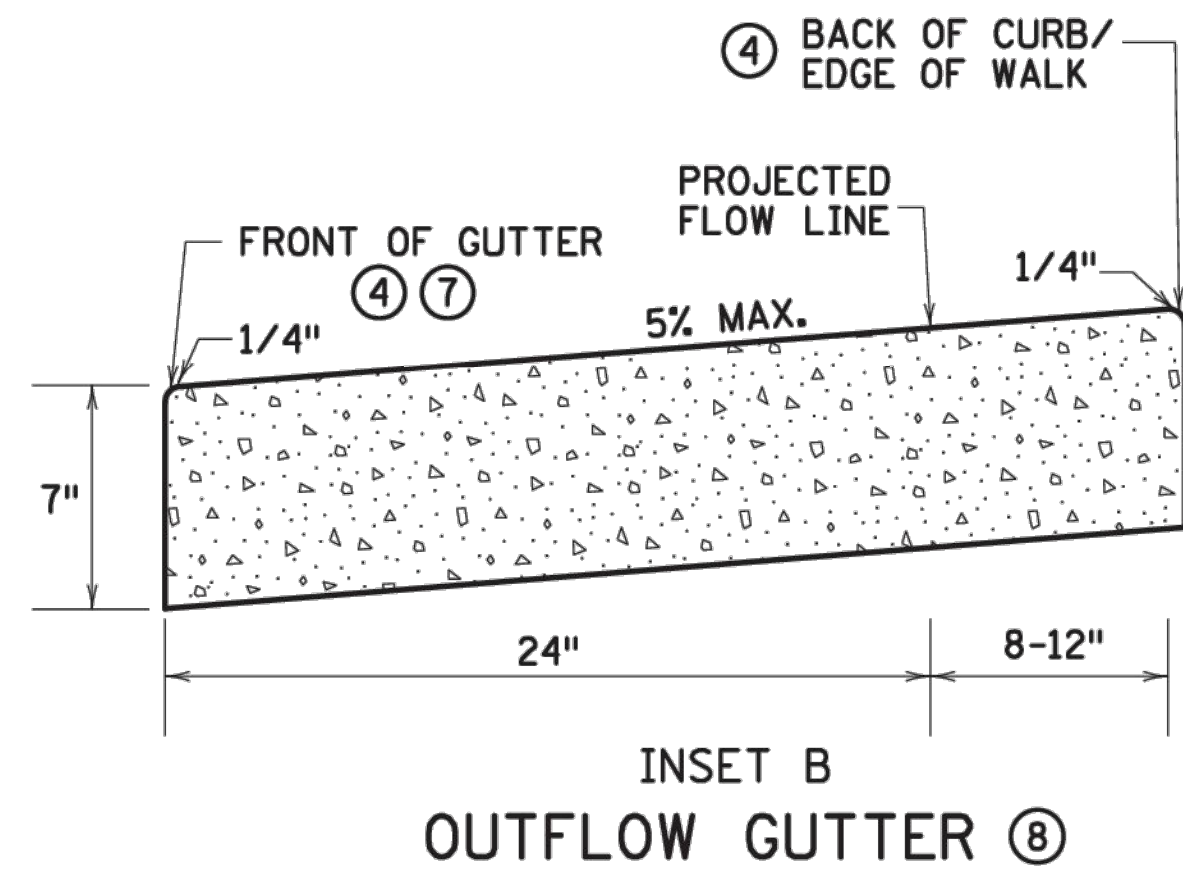
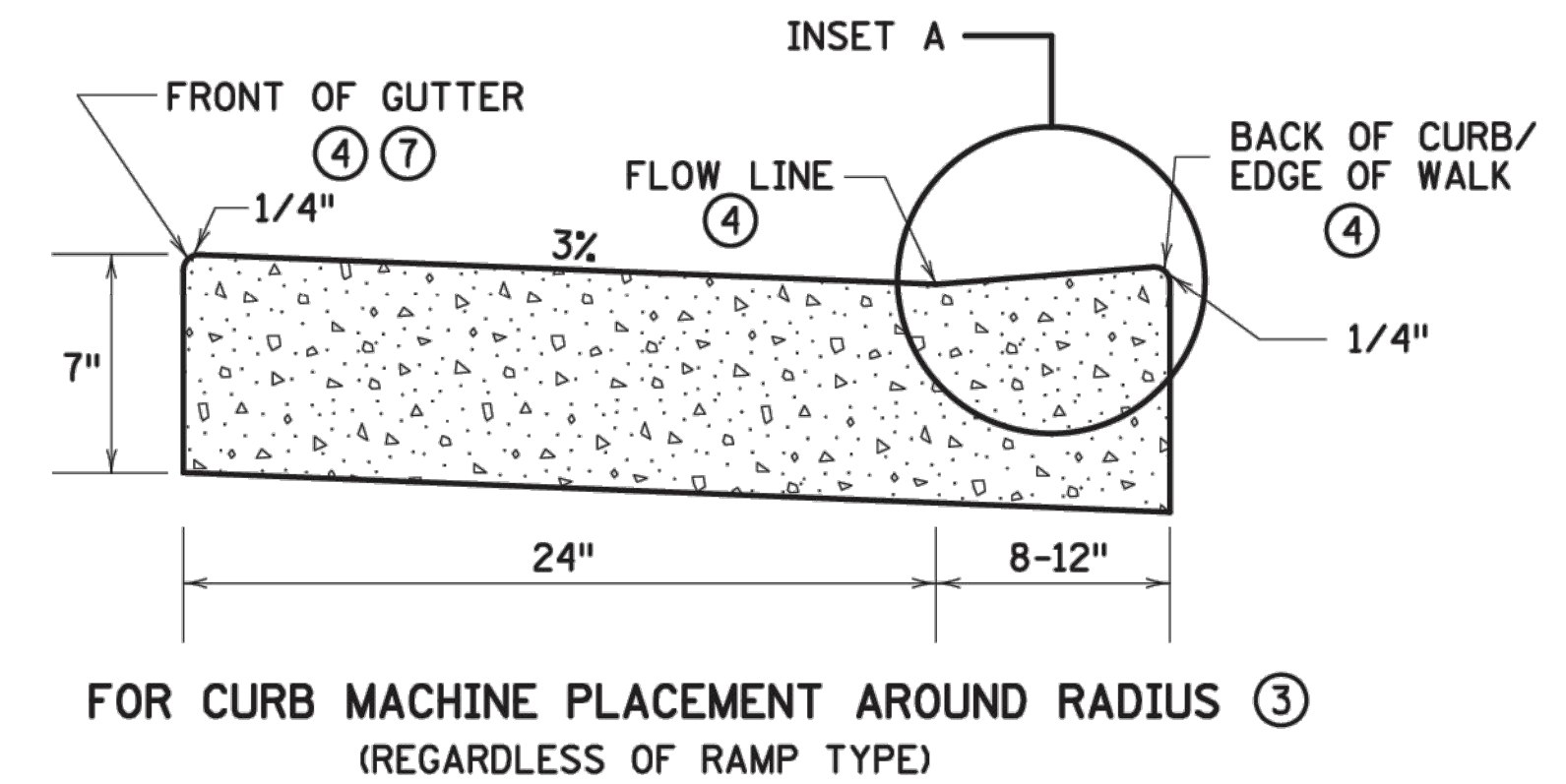
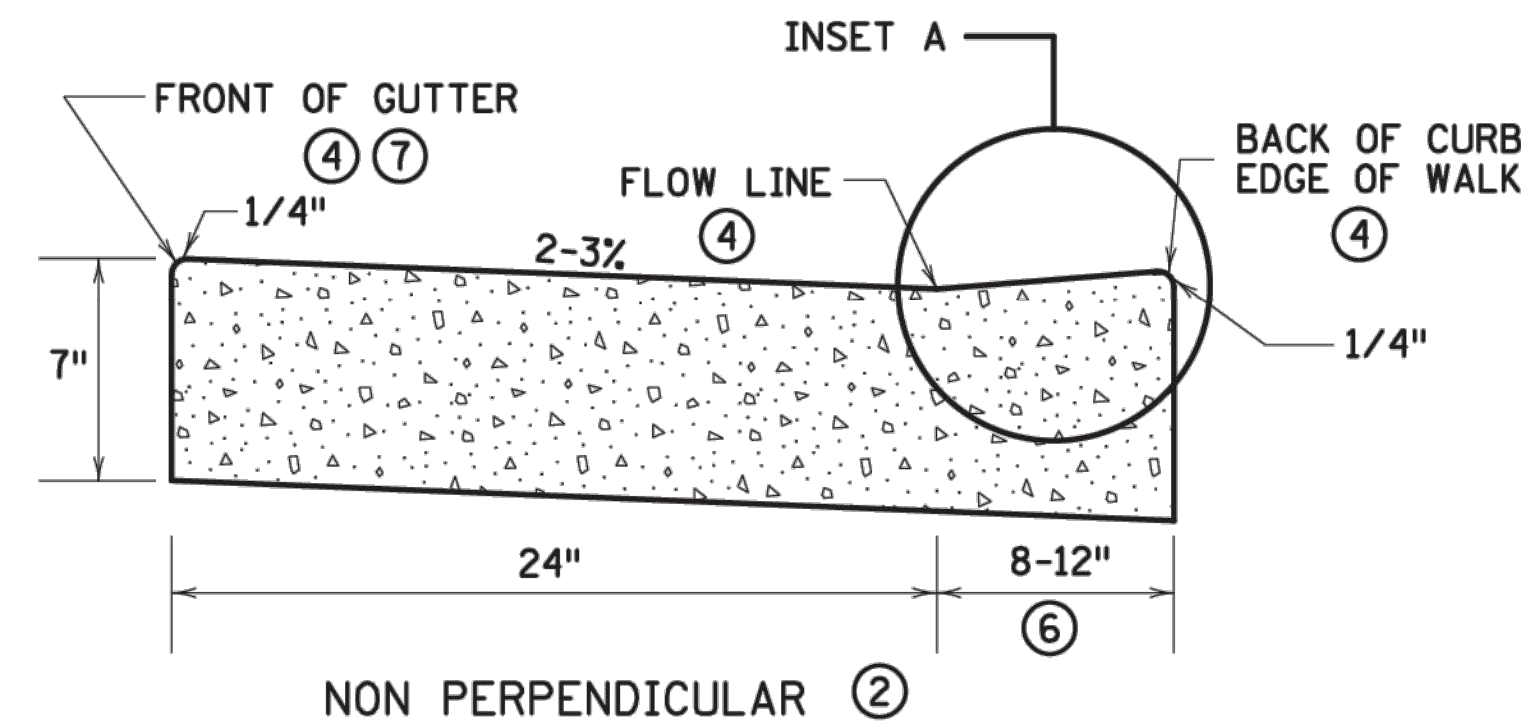
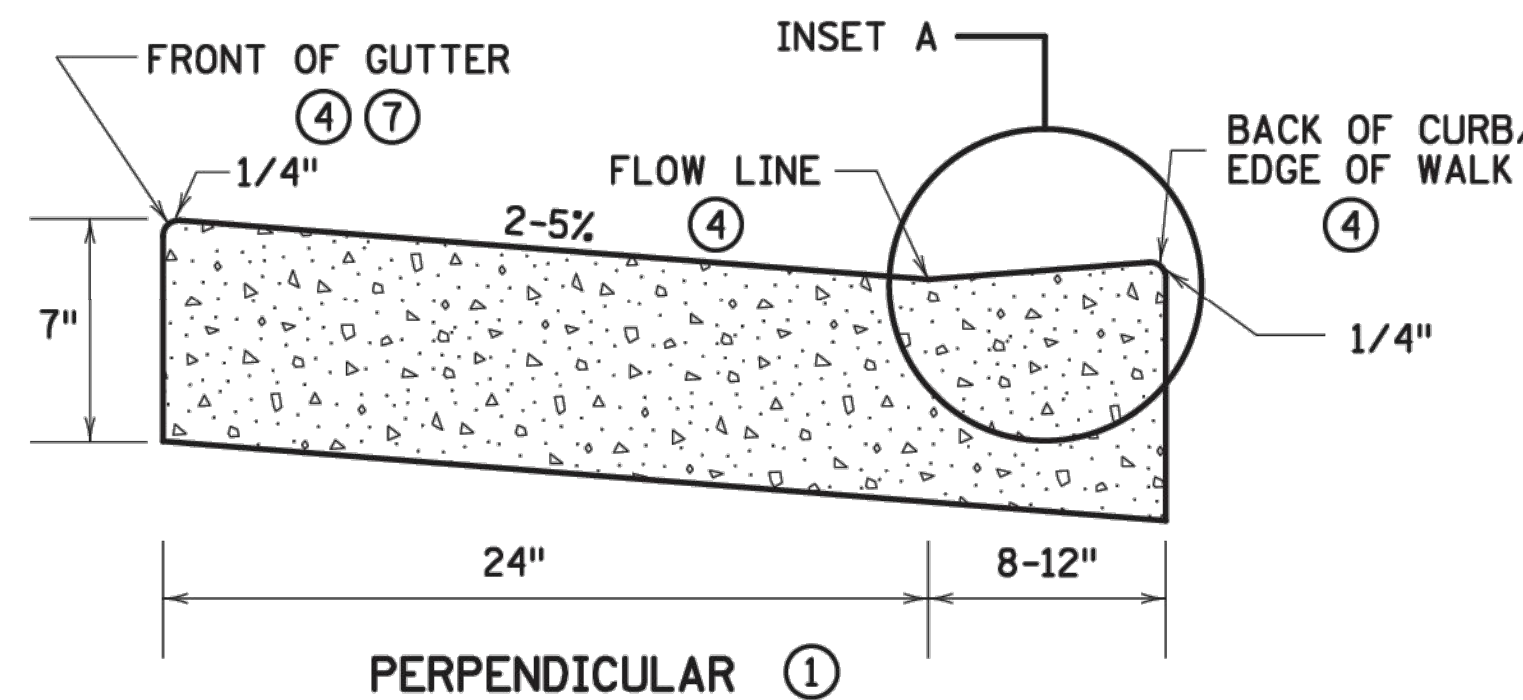
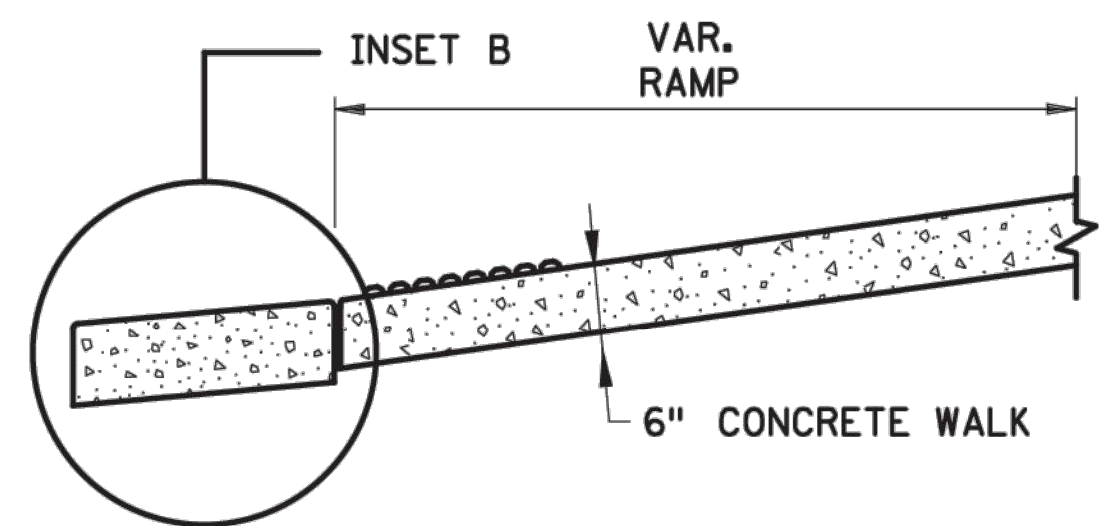
⑥ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

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



Nov 07, 2025 - 9:50am  
K:\PRIVATE\3395.28\ENGINEERING\PLAN DWG\3395.28-DETAILS-PED RAMPS.dwg



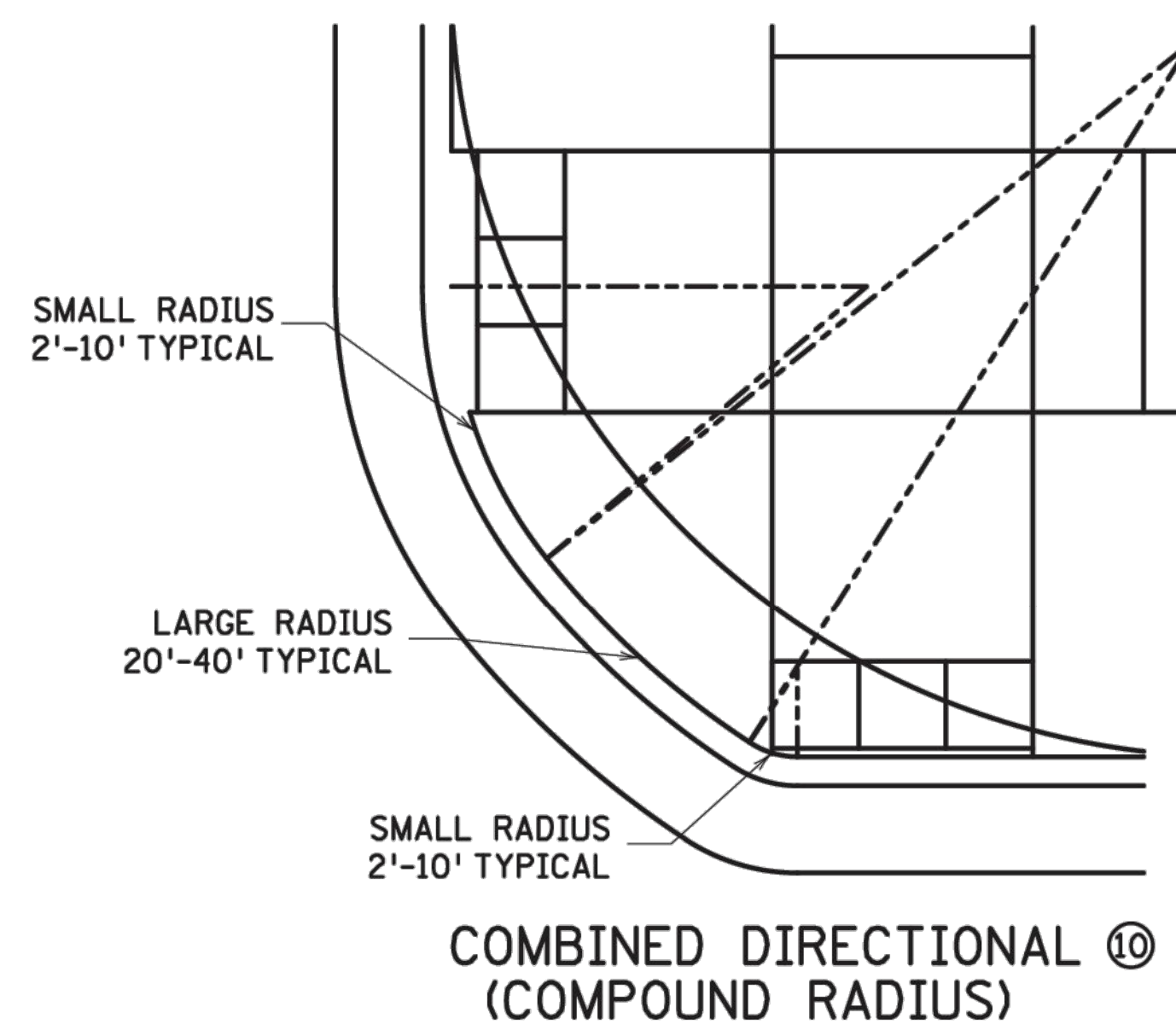
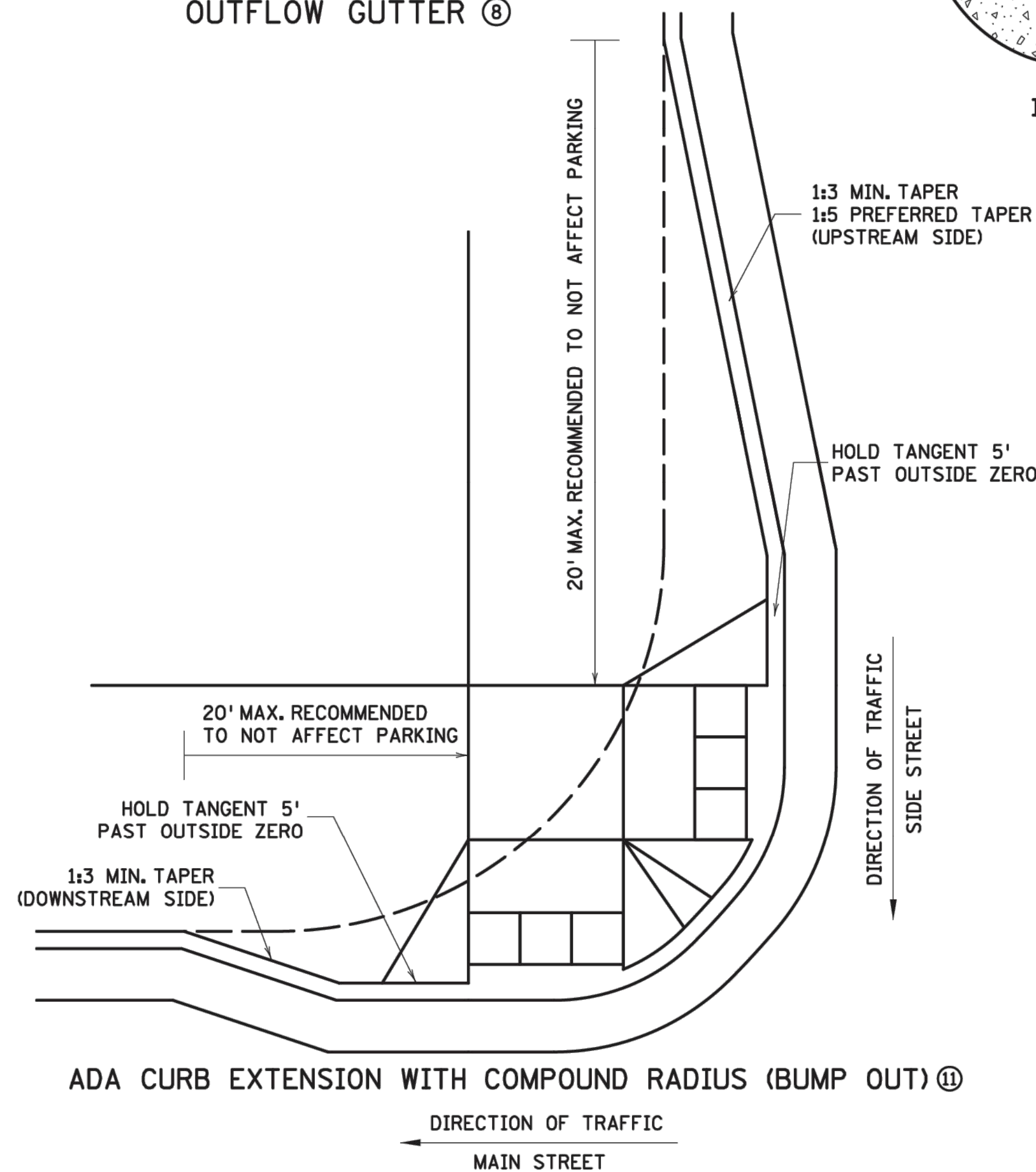
### PAVEMENT TREATMENT OPTIONS IN FRONT OF CURB & GUTTER FOR USE ON CURB RAMP RETROFITS

#### 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.

- 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 RAMPS.
- FOR USE AT CURB RAMPS 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 RAMPS.
- 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 RAMPS, 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.



LEAD  
EXPERT  
OFFICE

JEFFREY PERKINS  
OPERATIONS DIVISION

PEDESTRIAN CURB RAMP DETAILS

APPROVED: 11-04-2021  
REVISED:

THOMAS STYRBICKI  
STATE DESIGN ENGINEER

STANDARD  
PLAN  
5-297.250

3 OF 6



STANDARD PLAN

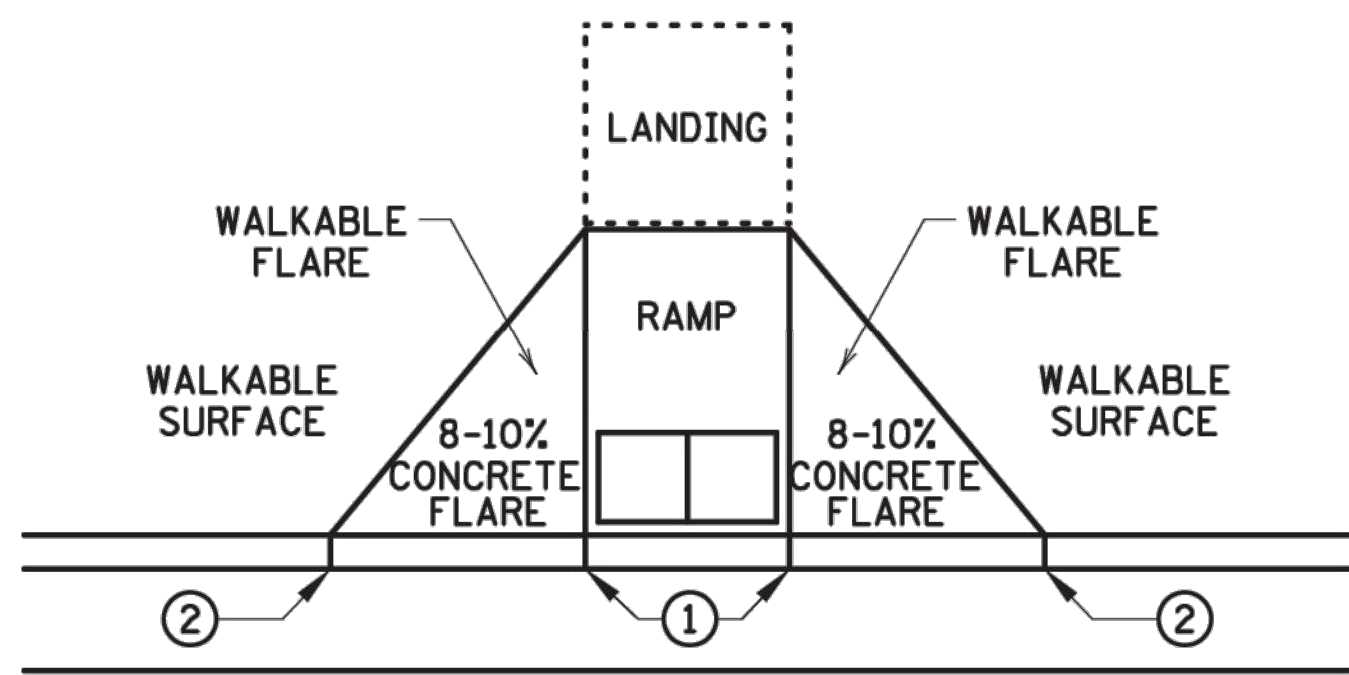
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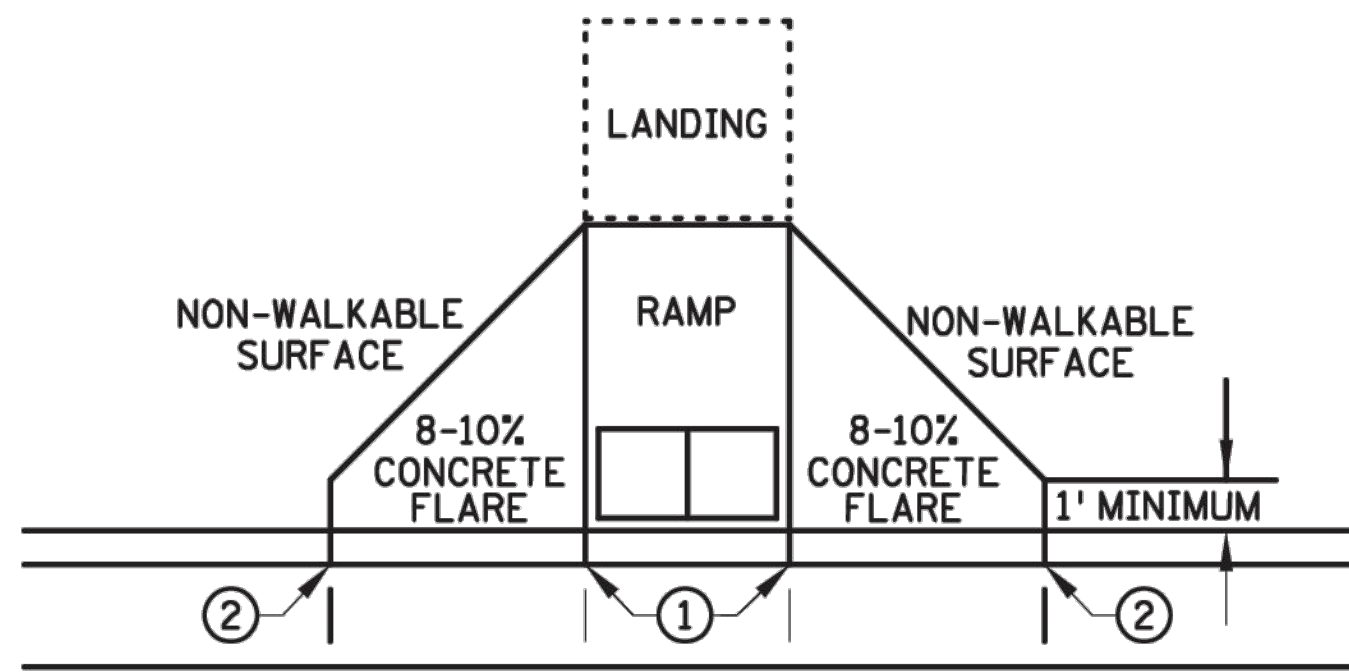
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TOTAL SHEETS C21

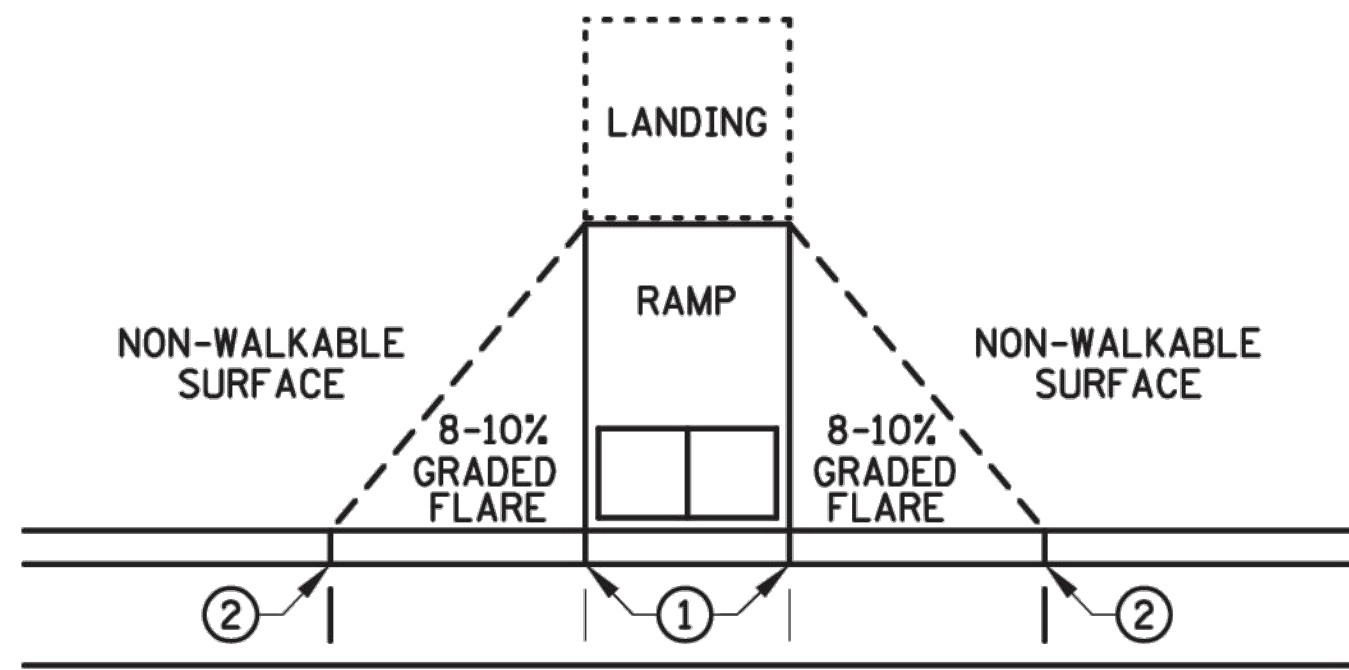




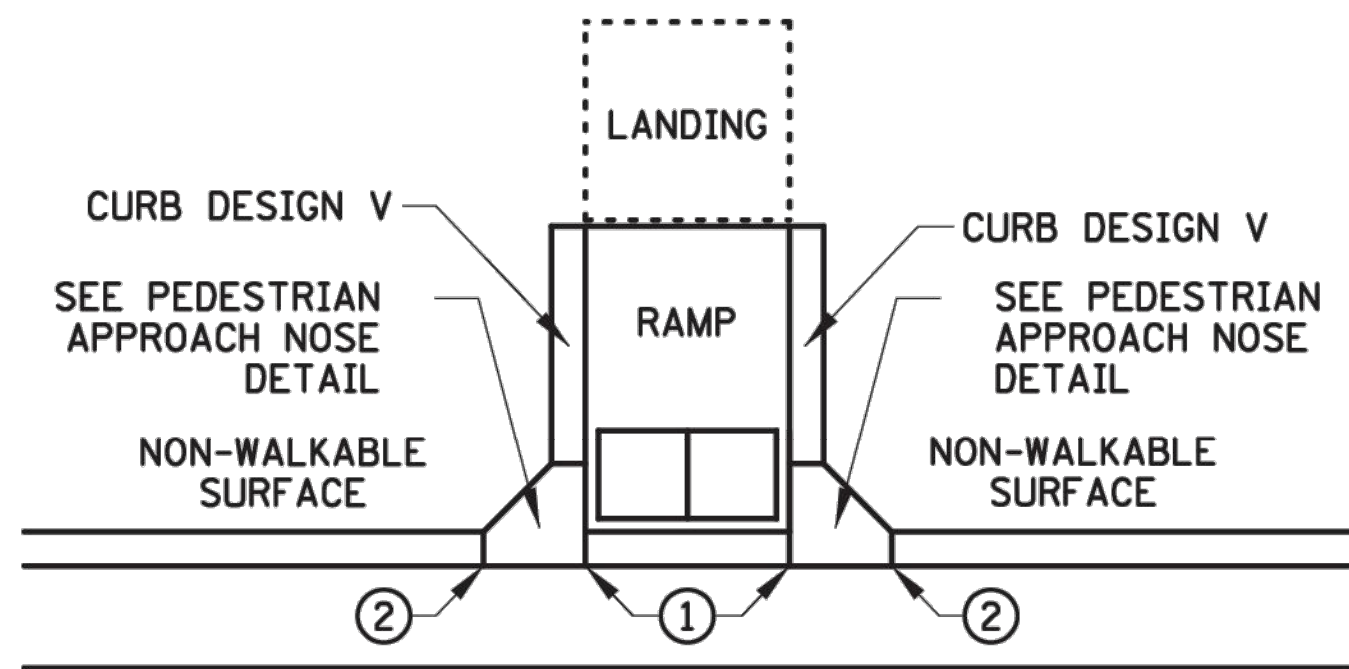
PAVED FLARES  
ADJACENT TO WALKABLE SURFACE



PAVED FLARES  
ADJACENT TO NON-WALKABLE SURFACE

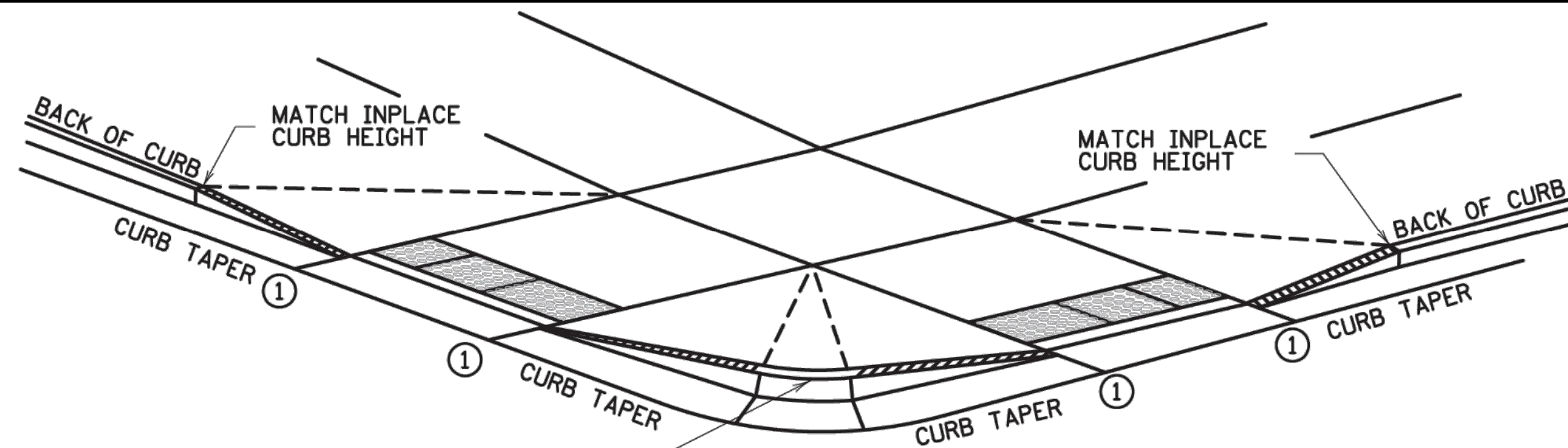


GRADED FLARES



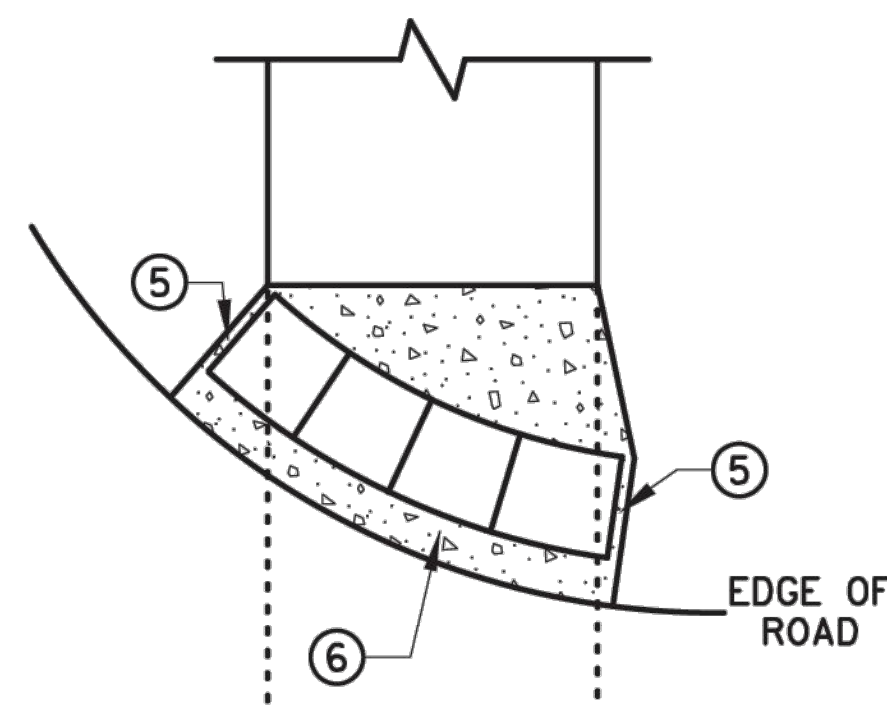
RETURNED CURB ④

TYPICAL SIDE TREATMENT OPTIONS ③ ⑩

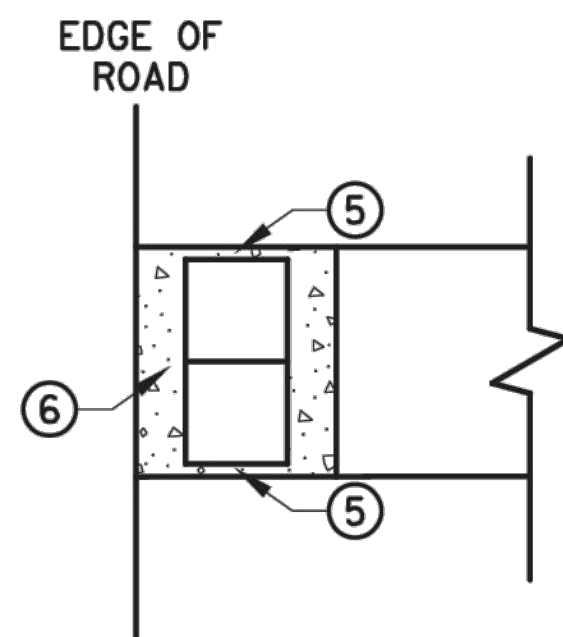


3" MINIMUM CURB HEIGHT, 4" PREFERRED  
(MEASURED AT FRONT FACE OF CURB)  
FOR A MIN. 6" LENGTH (MEASURED ALONG FLOW LINE)

DETECTABLE EDGE WITH  
CURB AND GUTTER ⑦

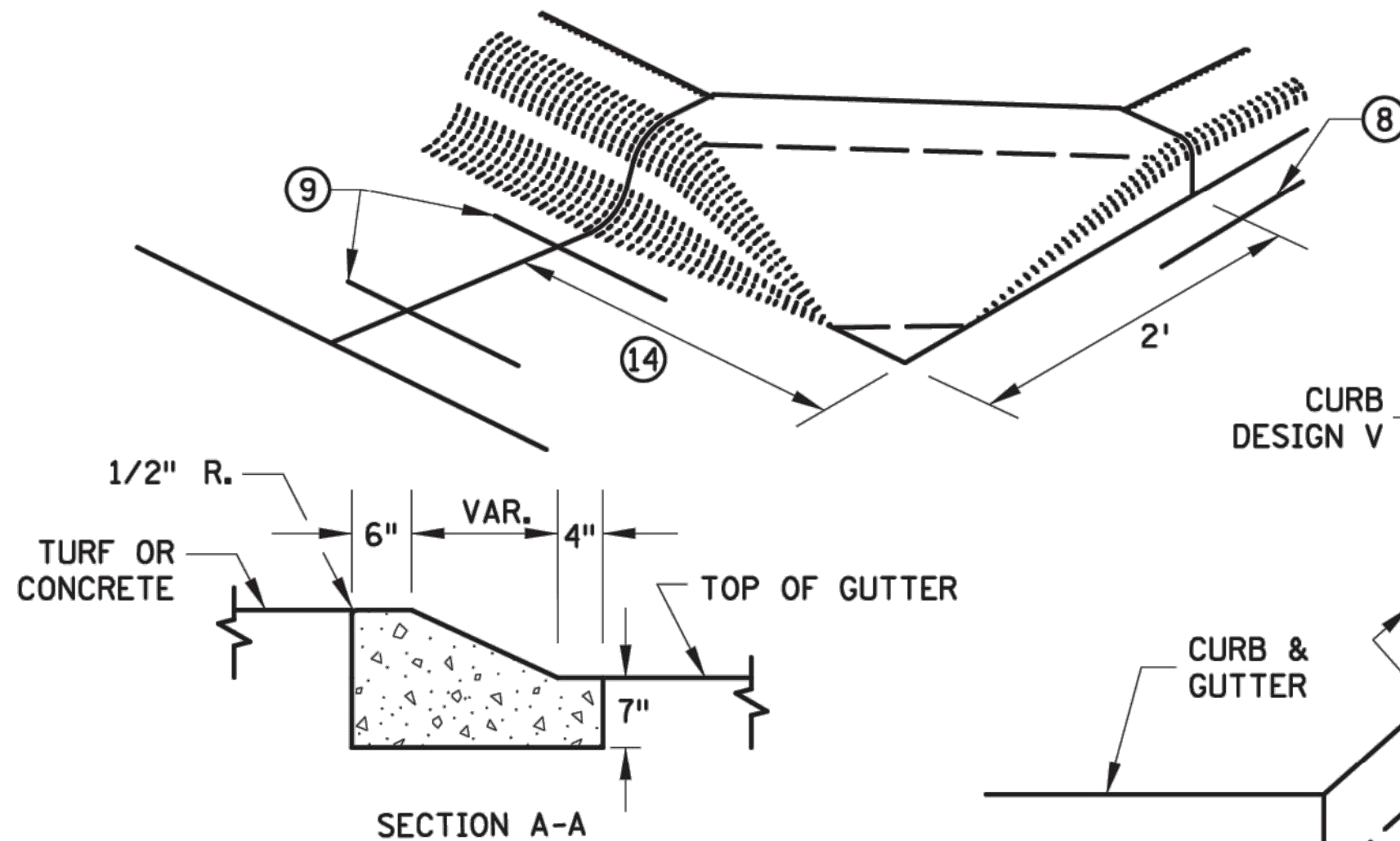


RADIAL DETECTABLE WARNING

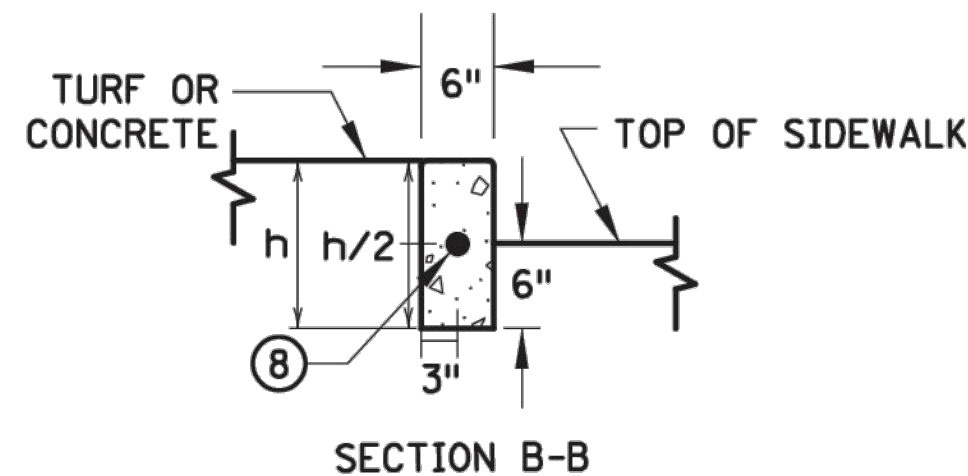


RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER

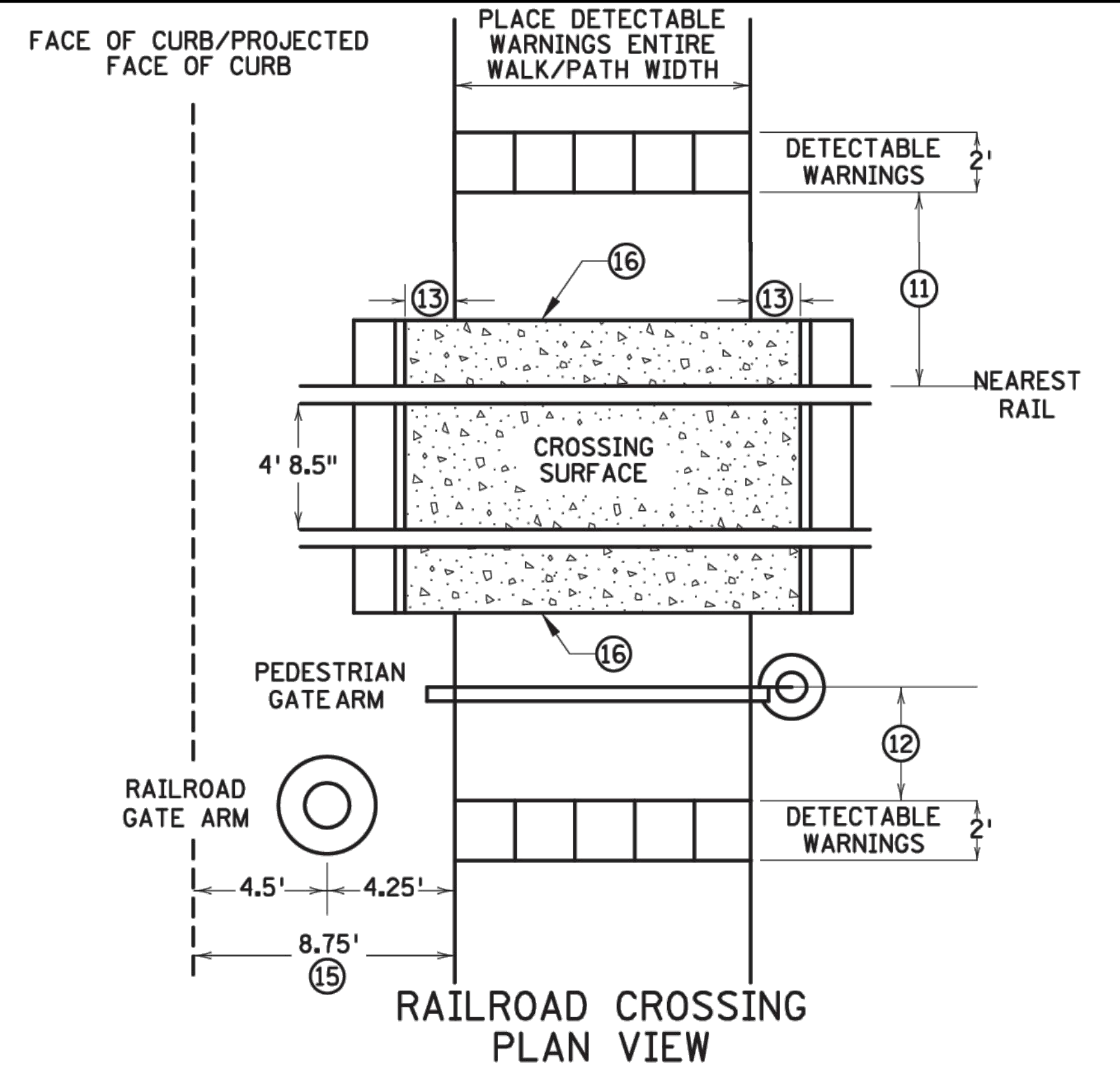


SECTION A-A



SECTION B-B



PEDESTRIAN APPROACH  
NOSE DETAIL  
(FOR RETURNED CURB  
SIDE TREATMENT)



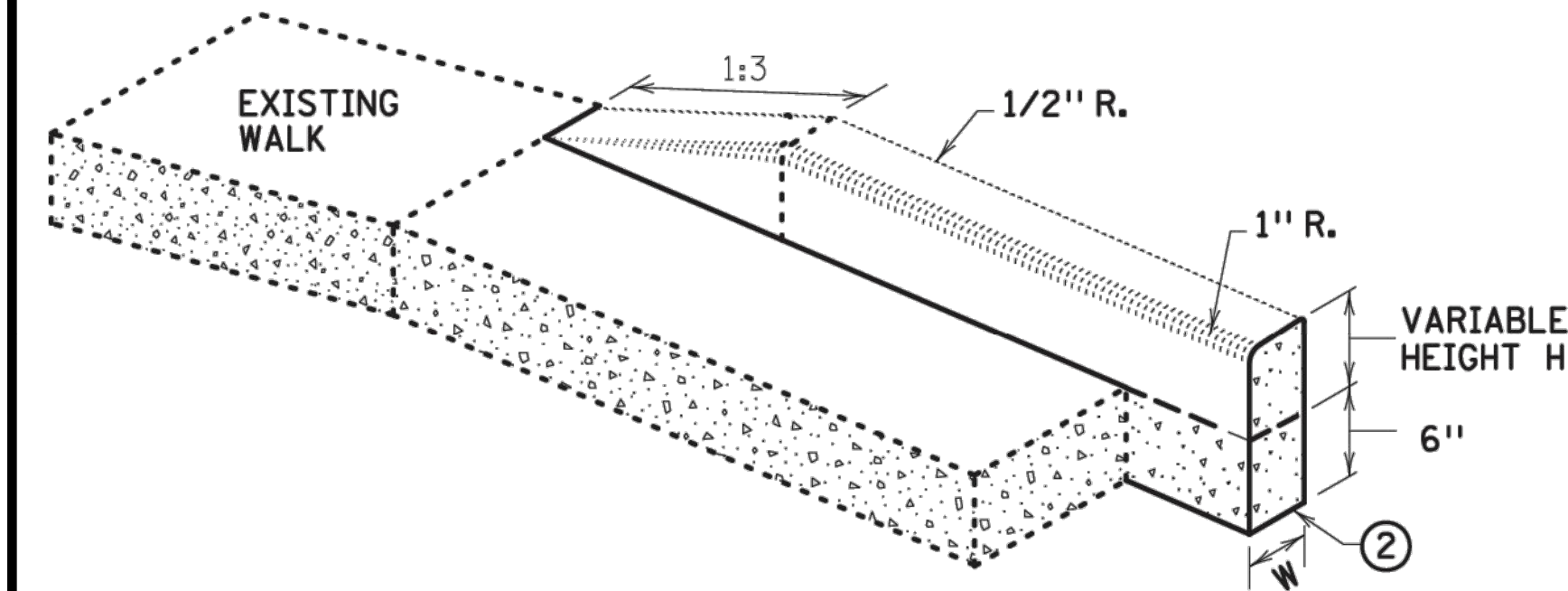
RAILROAD CROSSING  
PLAN VIEW

#### NOTES:

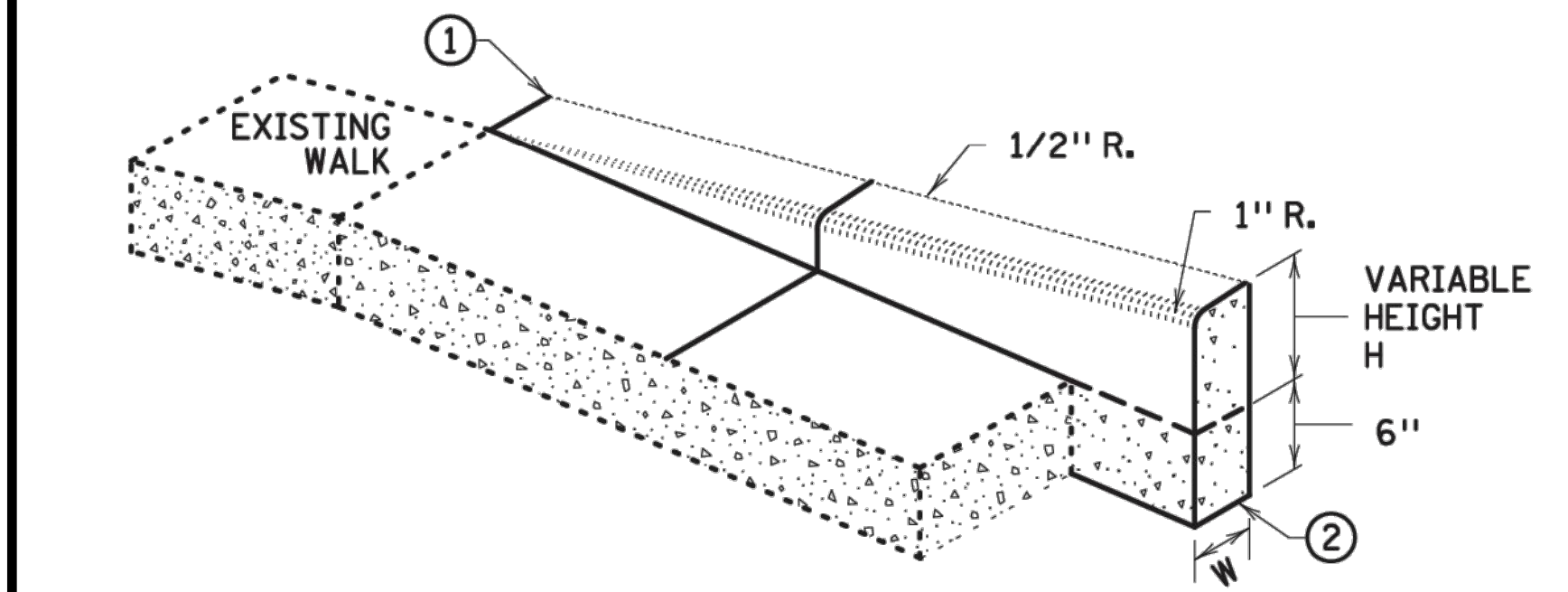
- INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT, INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.
- SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS 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 RAMP 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.

LEAD EXPERT OFFICE	JEFFREY PERKINS OPERATIONS DIVISION				PEDESTRIAN CURB RAMP DETAILS	APPROVED: 11-04-2021 REVISED:	 THOMAS STYRBICKI STATE DESIGN ENGINEER	STANDARD PLAN 5-297.250	4 OF 6
		 DEPARTMENT OF TRANSPORTATION				STANDARD PLAN	STATE PROJ. NO.	SHEET NO.	C10
							TRUNK HWY.	TOTAL SHEETS	C21

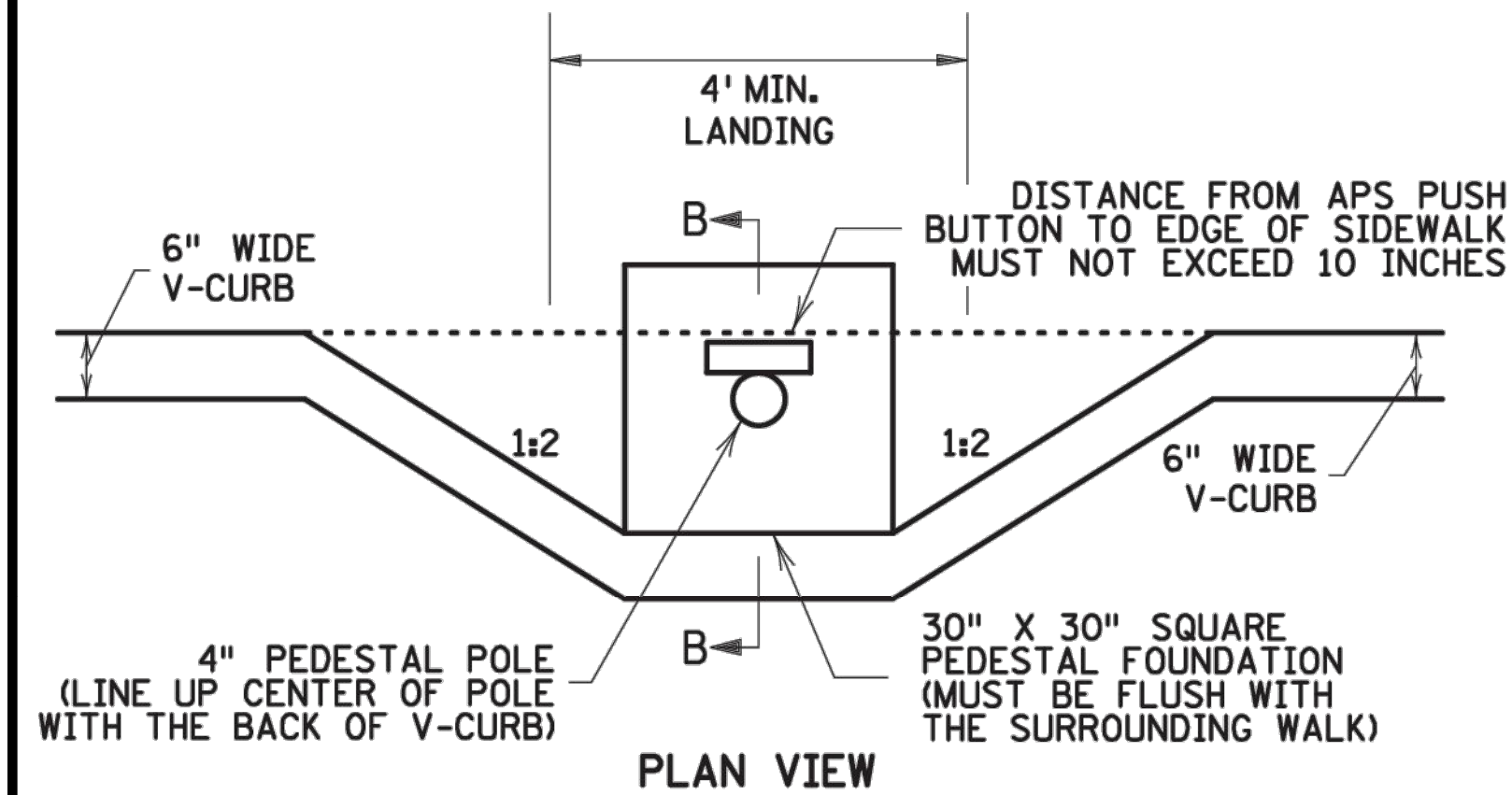




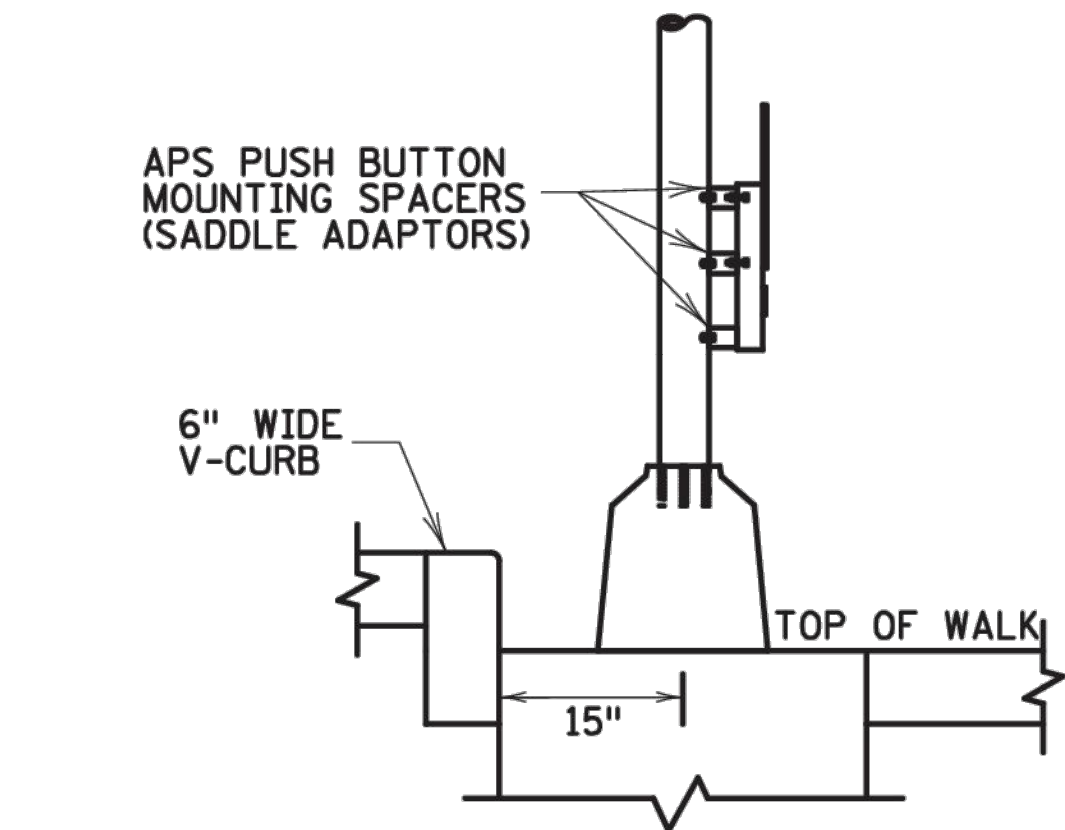
V CURB ADJACENT TO LANDSCAPE  
CURB WITHIN SIDEWALK LIMITS



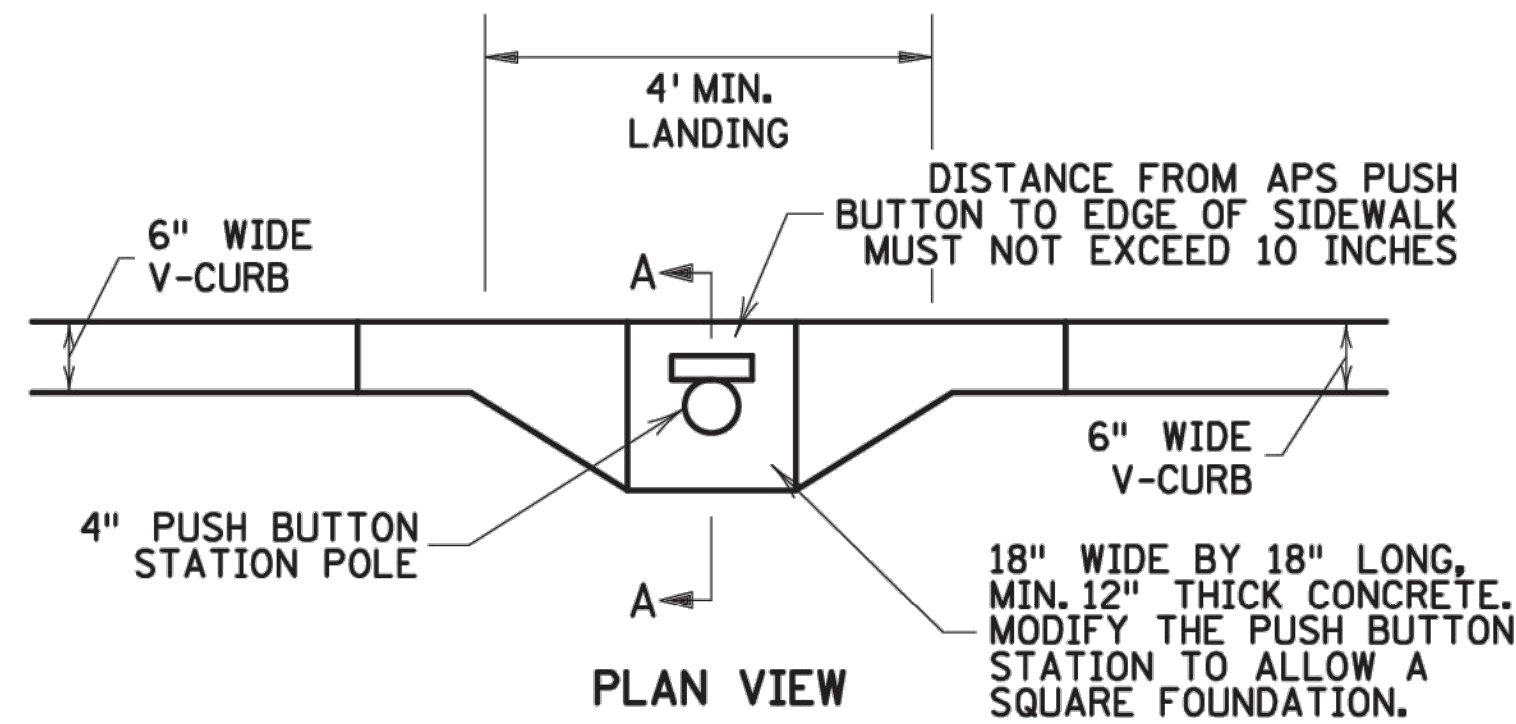
V CURB ADJACENT TO LANDSCAPE  
CURB OUTSIDE SIDEWALK LIMITS



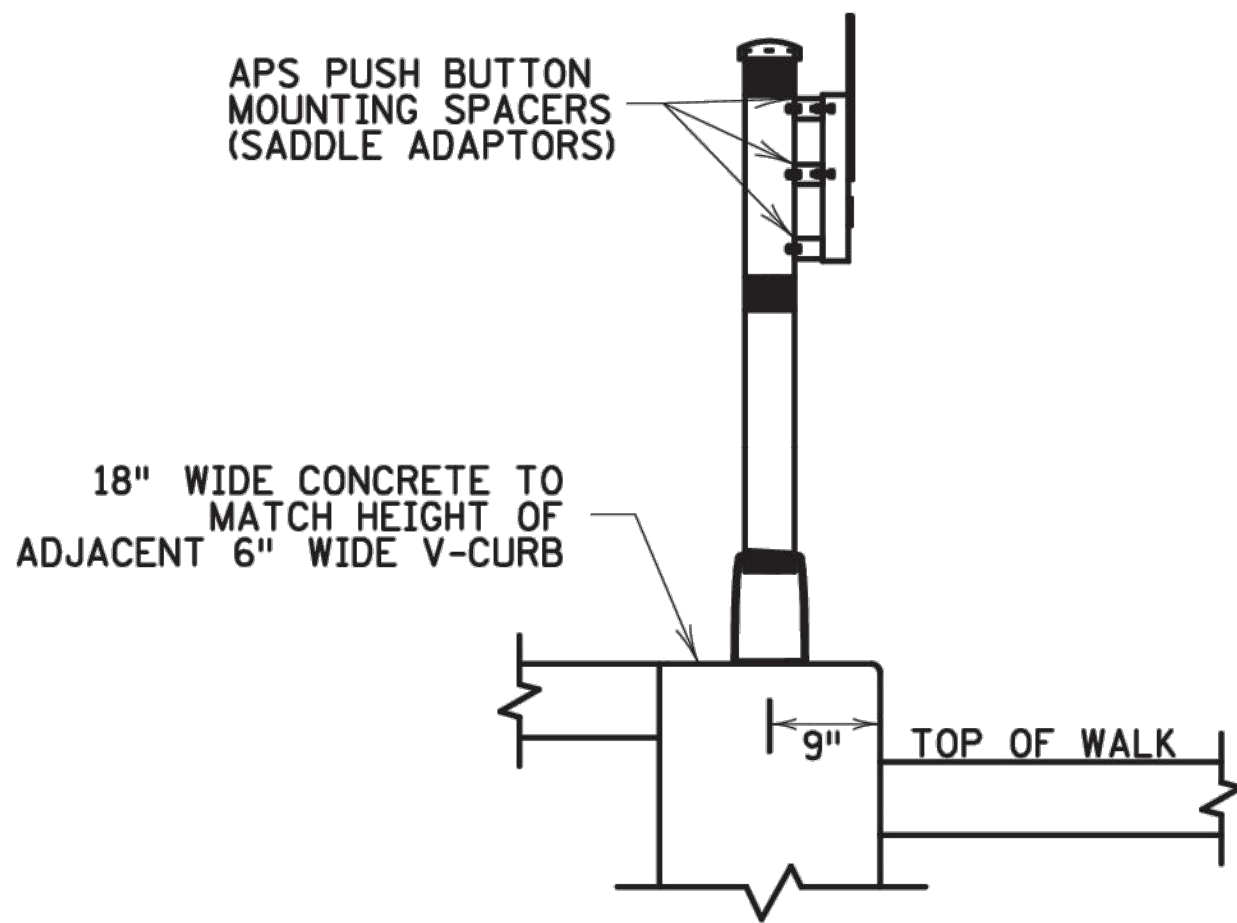
PLAN VIEW



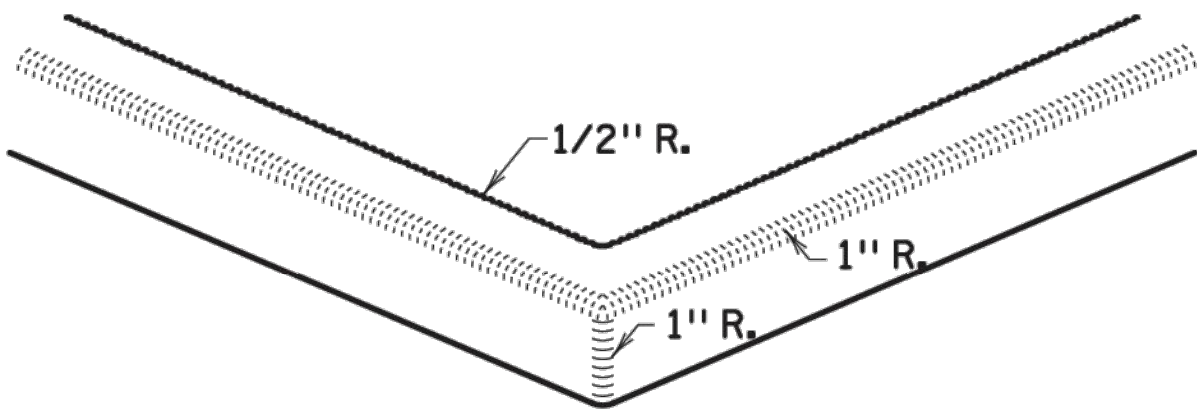
SECTION B-B  
SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



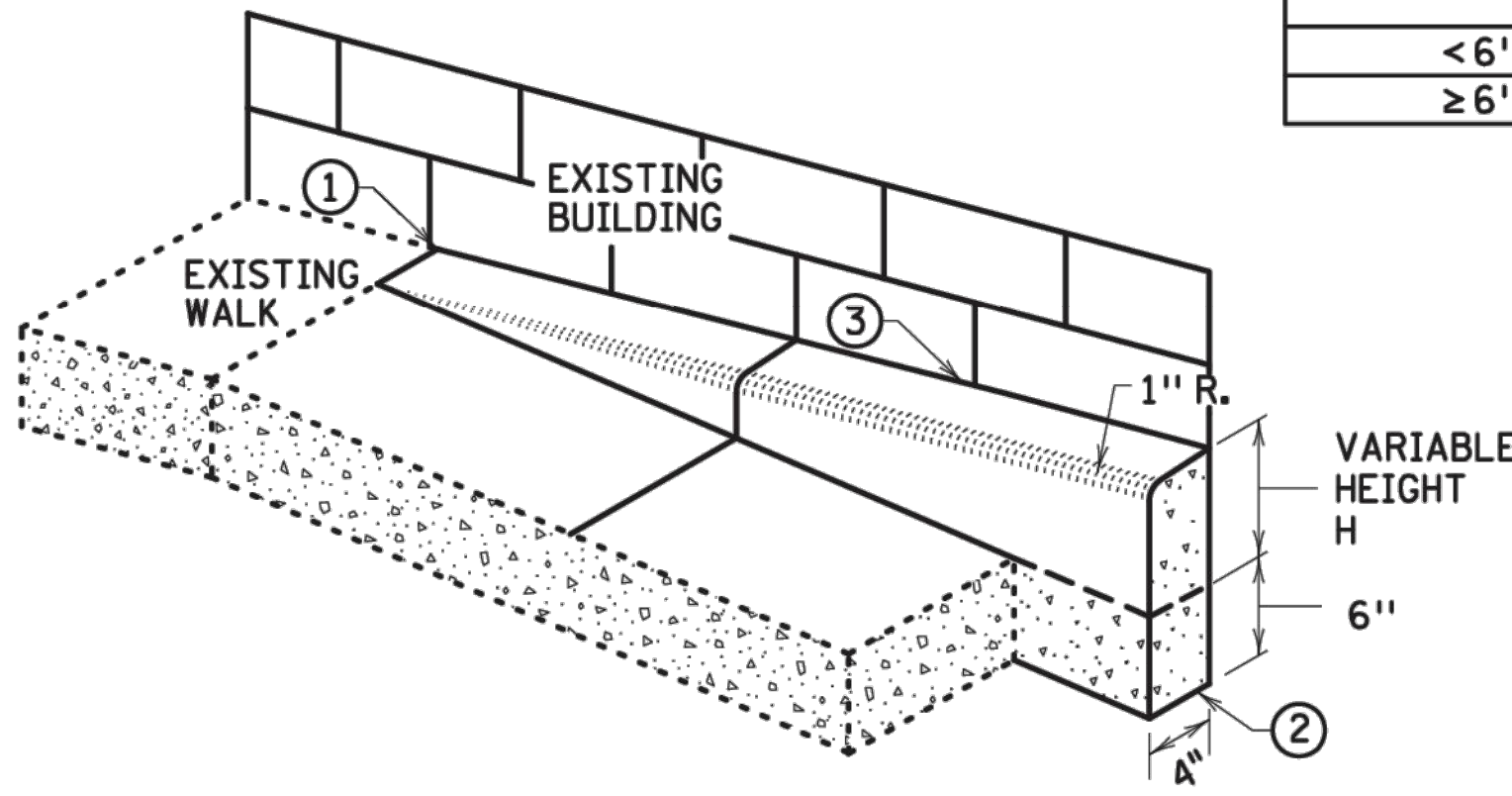
PLAN VIEW



SECTION A-A  
PUSH BUTTON STATION (V-CURB)

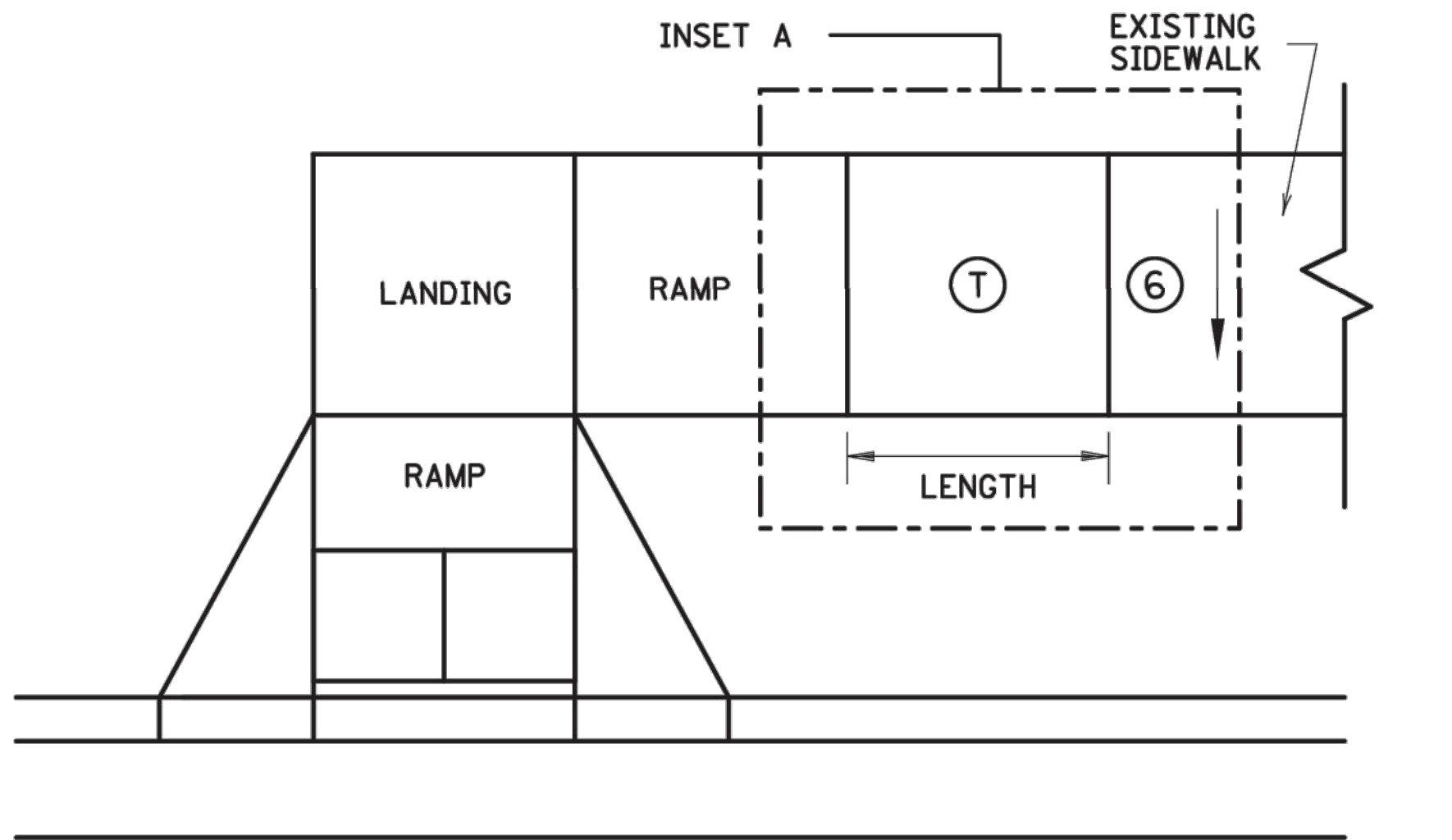


V CURB INTERSECTION

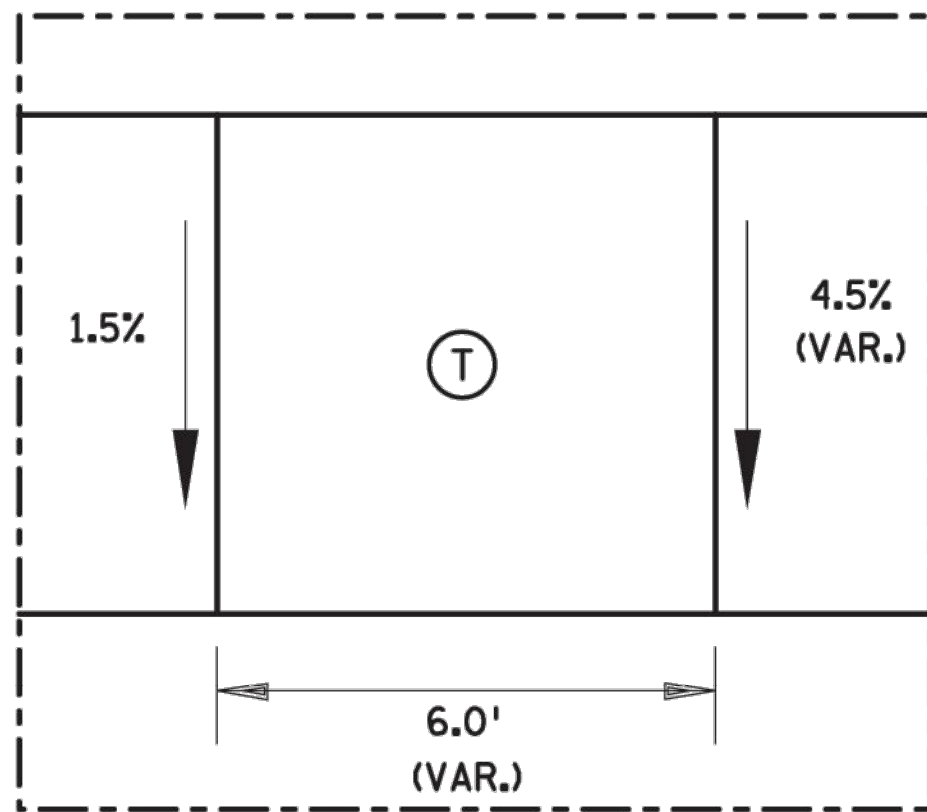


V CURB ADJACENT TO BUILDING  
OR BARRIER

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



TRANSITION PANEL ④ ⑤



INSET A

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 PANELS 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%.

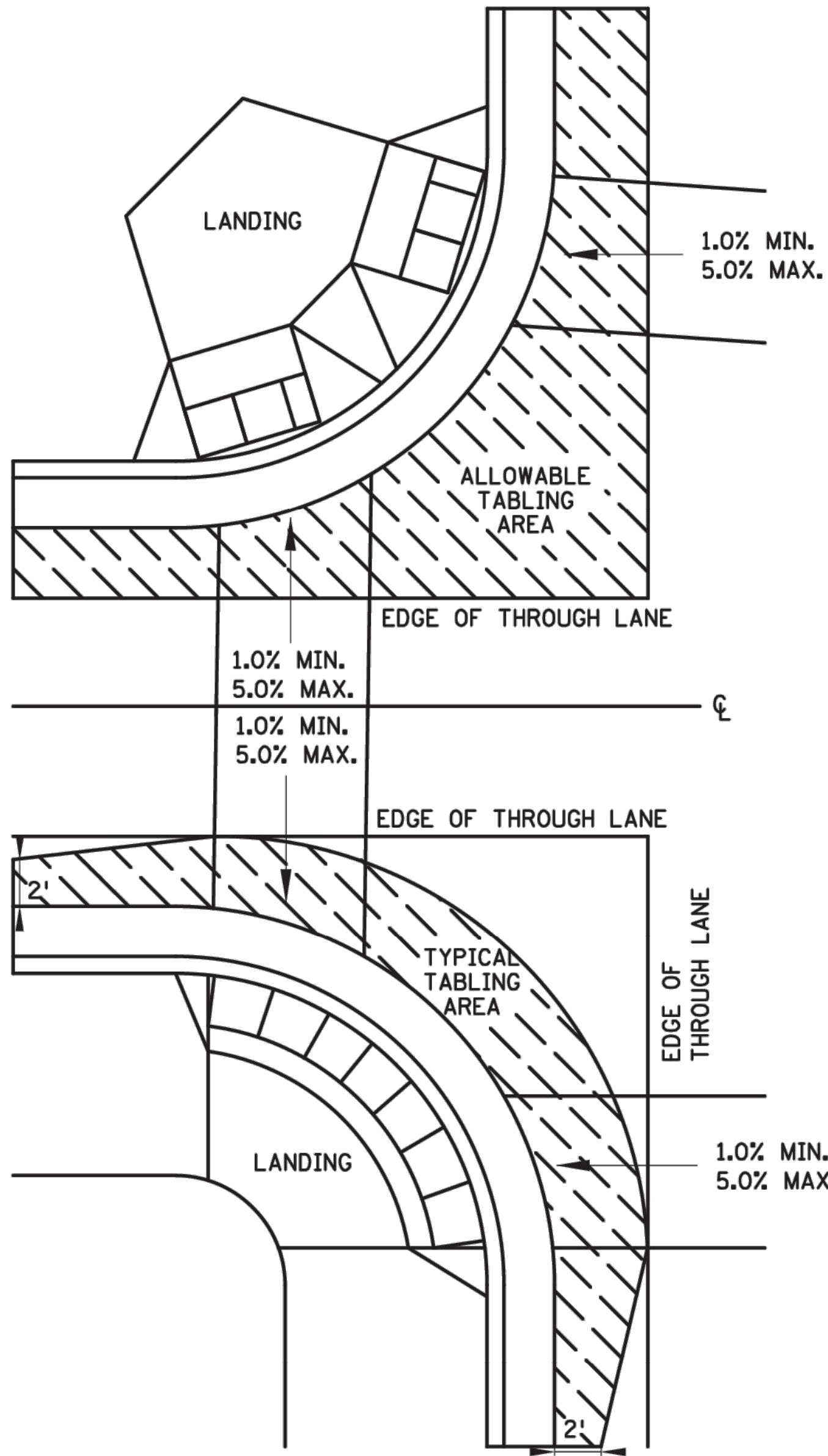
LEGEND

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

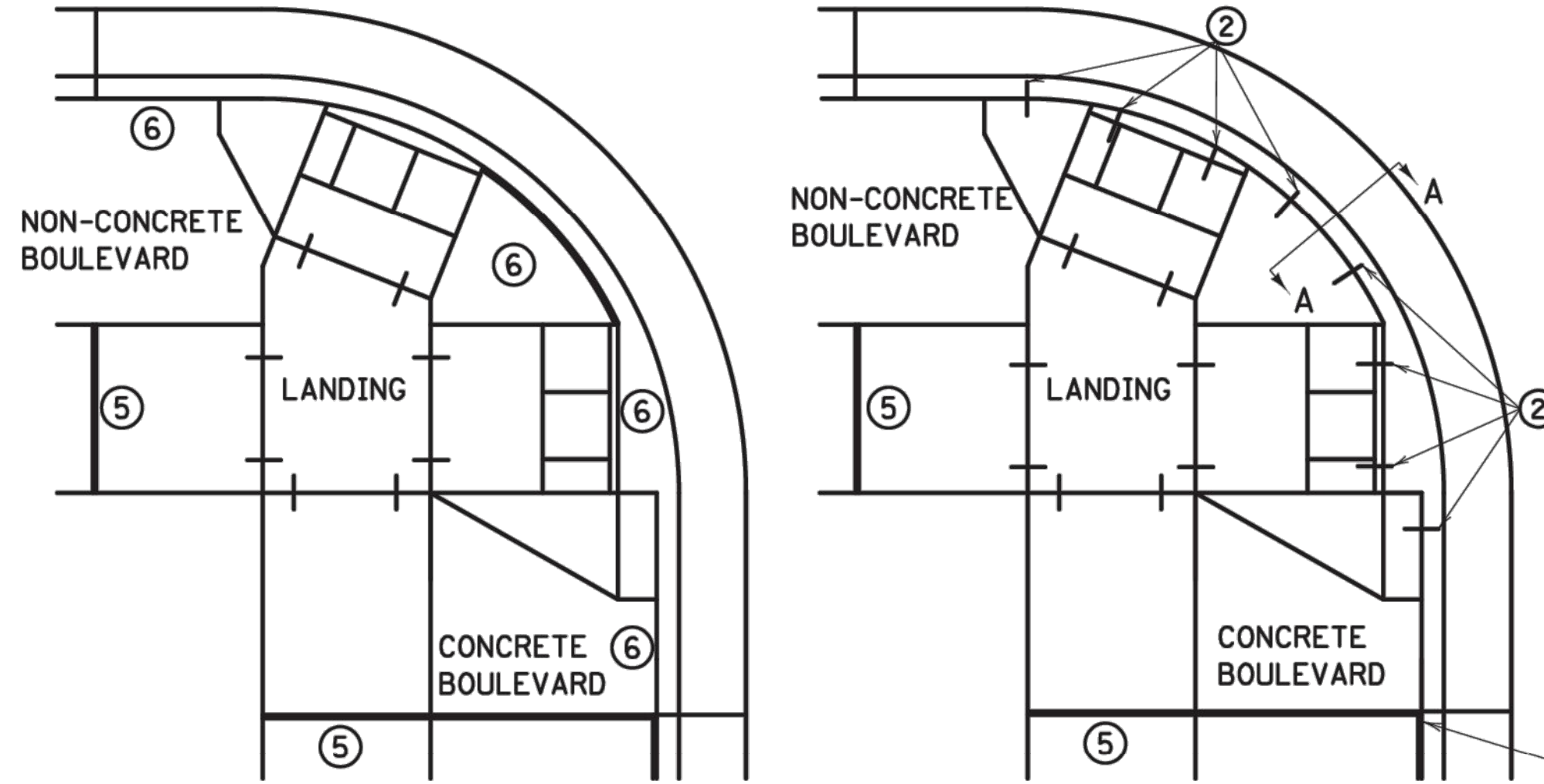
- ⑤ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
- ④ LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PAR.
- ③ 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.



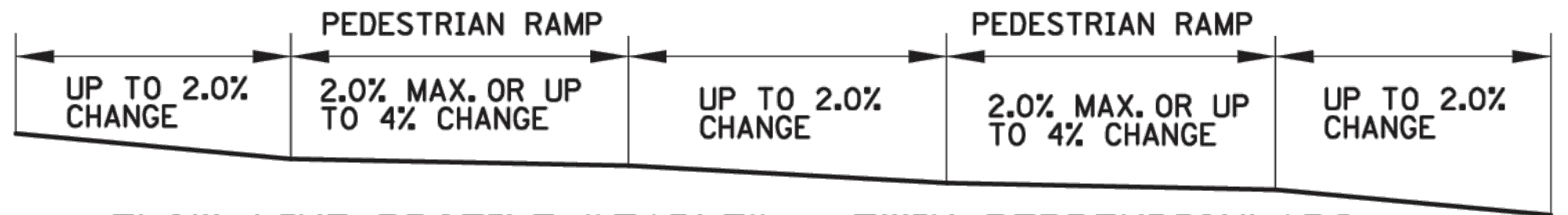
Nov 07, 2025 - 9:50am  
K:\PRIVATE\3395.28\ENGINEERING\PLAN DWG\339528-DETAILS-PED RAMPS.dwg



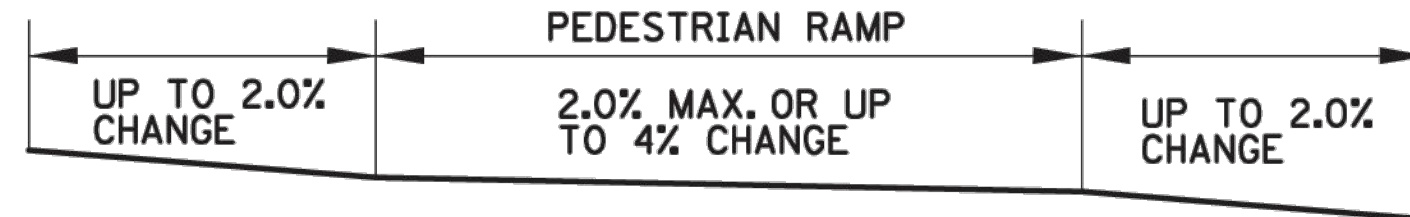
CURB LINE AND ROAD CROSSING ADJUSTMENTS



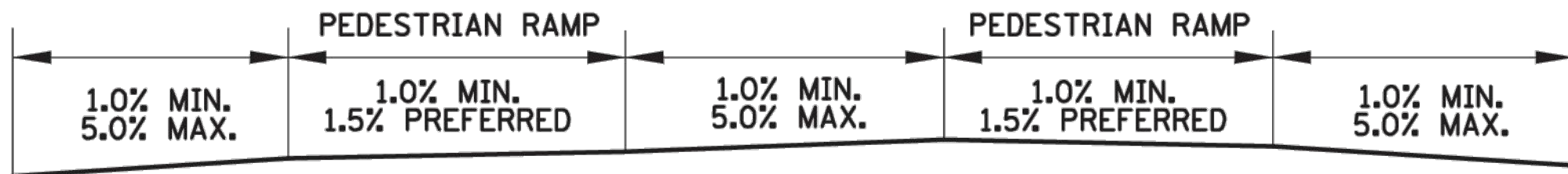
EXPANSION MATERIAL PLACEMENT FOR CONCRETE ROADWAYS  
CURB LINE REINFORCEMENT ④  
PLACEMENT ON BITUMINOUS ROADWAYS



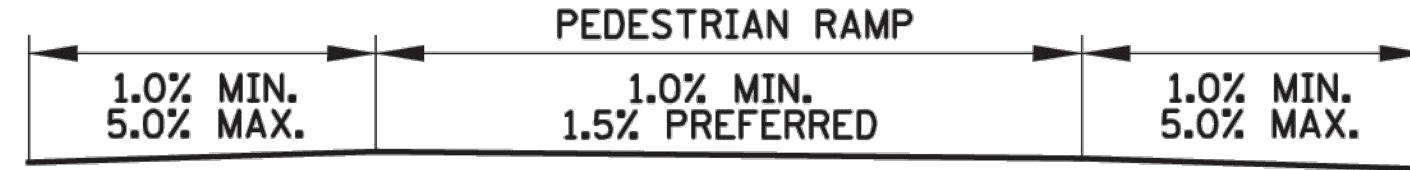
FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS



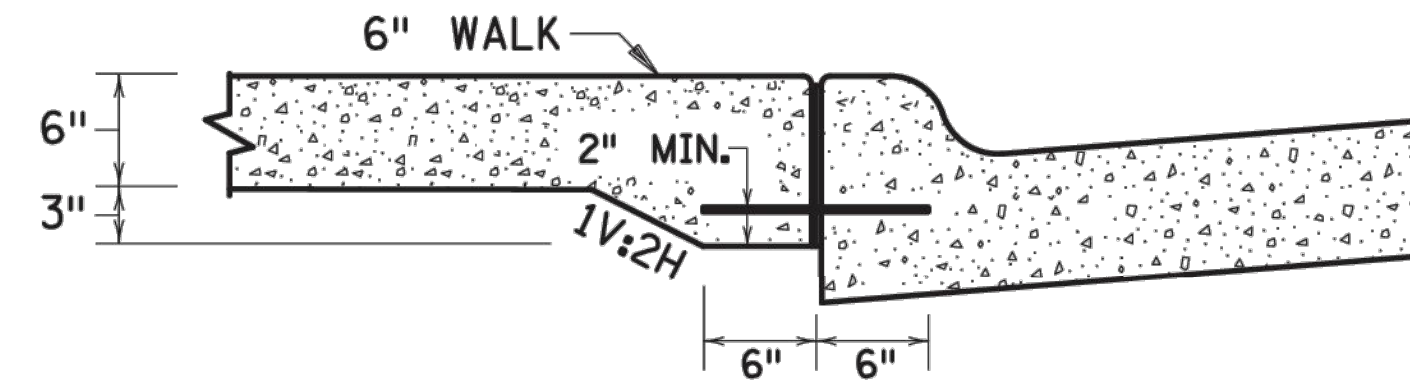
FLOW LINE PROFILE "TABLE" - FAN



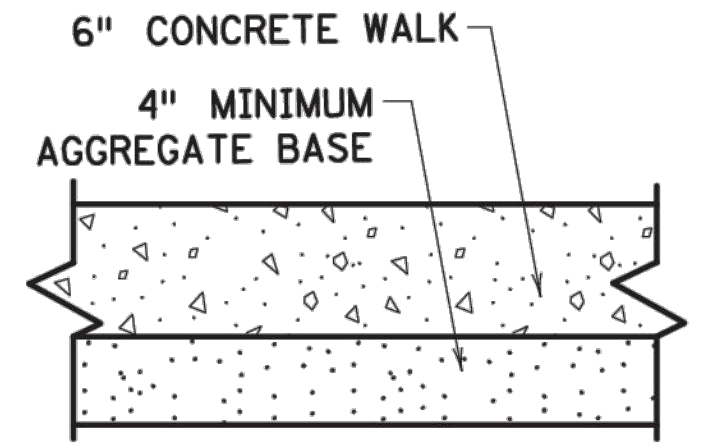
FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS



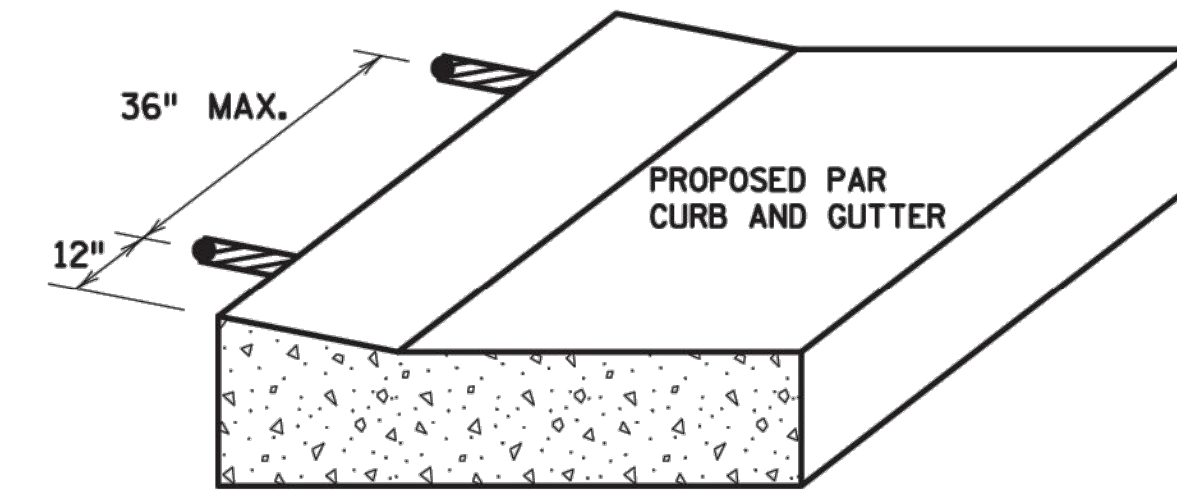
FLOW LINE PROFILE RAISE - FAN



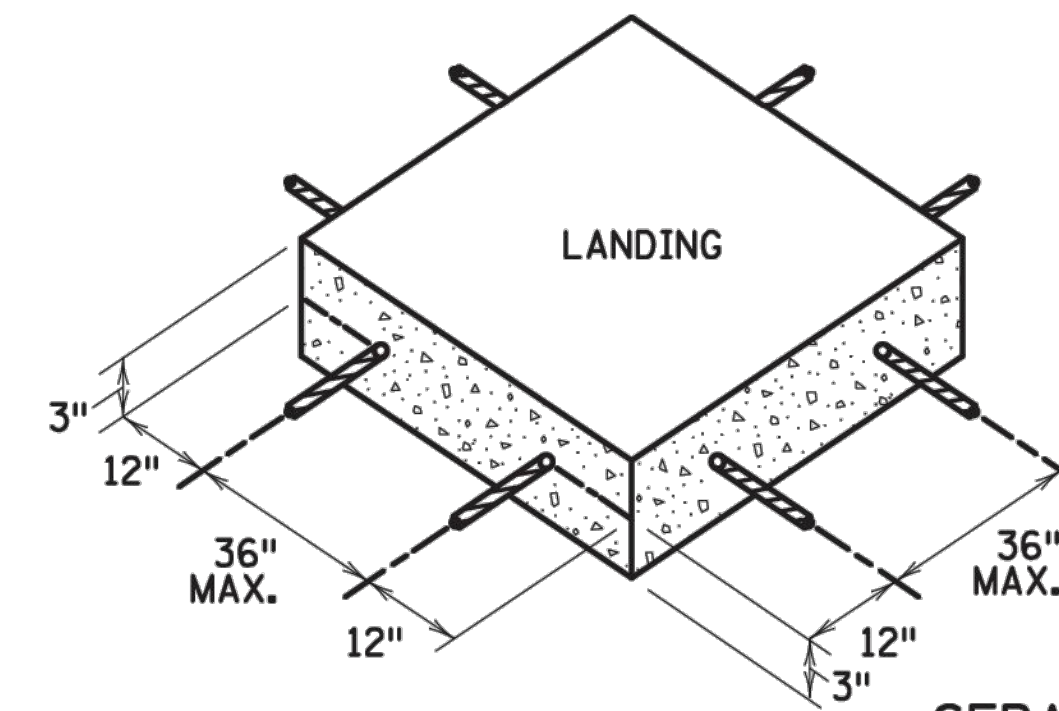
SECTION VIEW A-A  
THICKENED SECTION  
THROUGH CURB RAMP FLARES



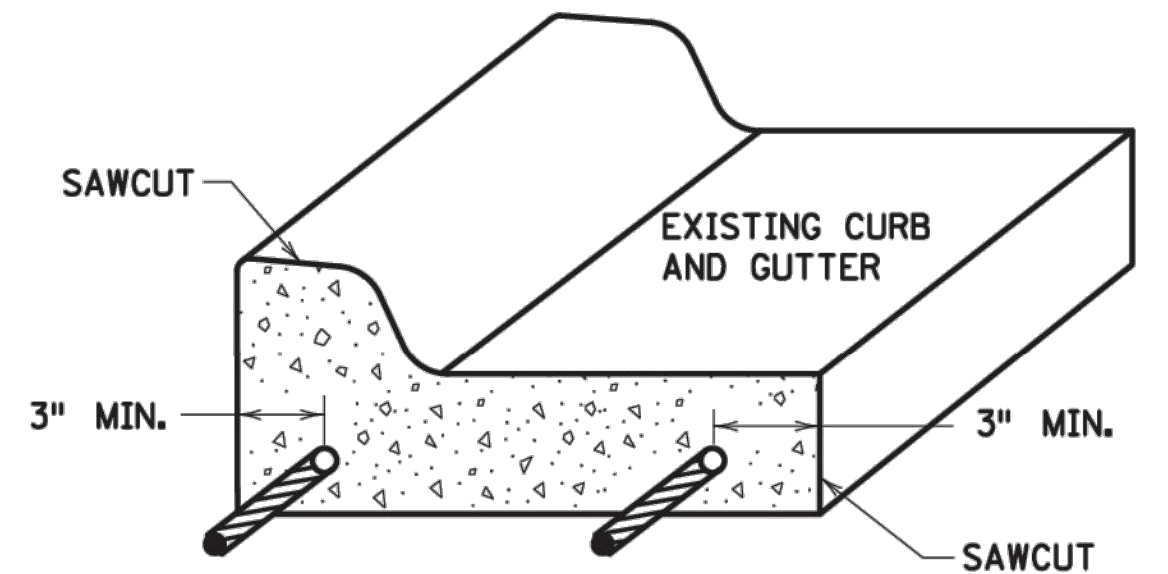
TYPICAL SIDEWALK SECTION  
WITHIN INTERSECTION CORNER



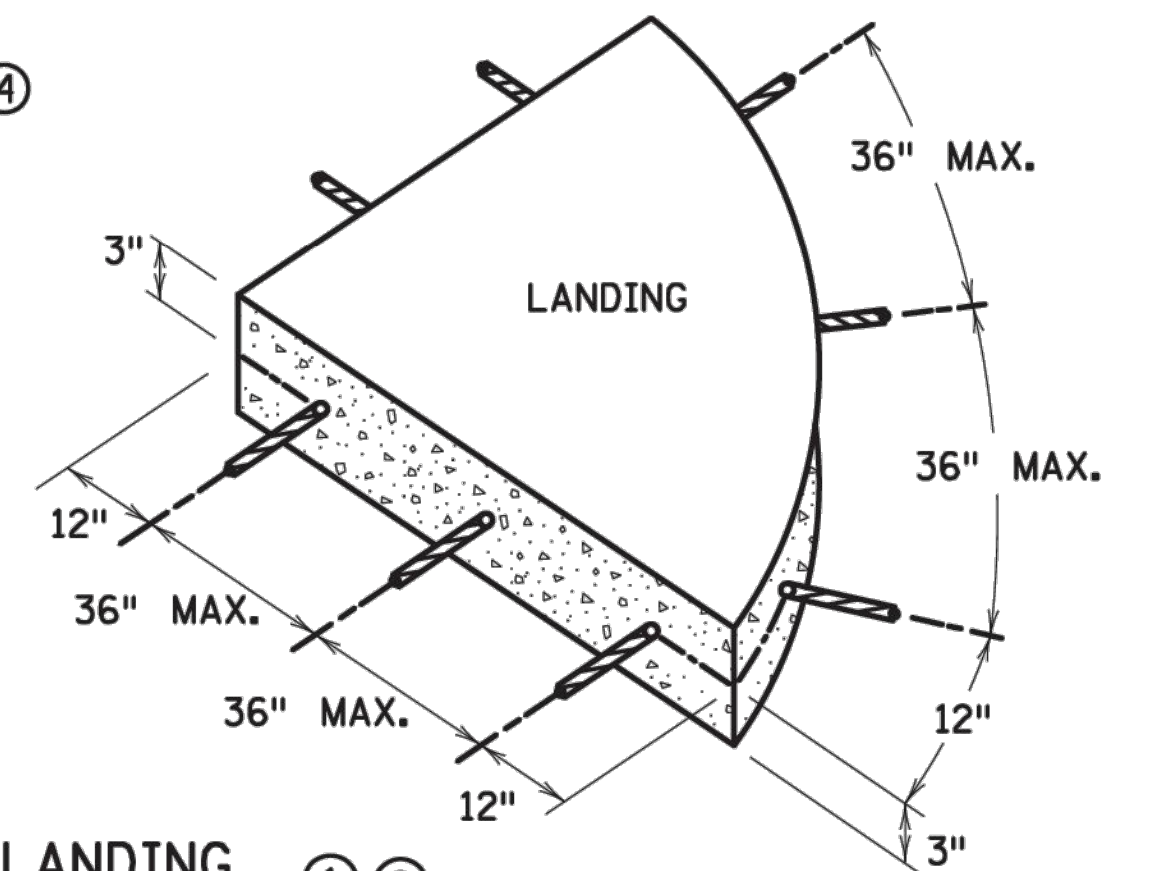
CURB RAMP REINFORCEMENT DETAILS ② ④



SEPARATE LANDING  
POUR REINFORCEMENT ① ②



CURB AND GUTTER  
REINFORCEMENT ③



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

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.

LEAD  
EXPERT  
OFFICE

JEFFREY PERKINS  
OPERATIONS DIVISION

PEDESTRIAN CURB RAMP DETAILS

APPROVED: 11-04-2021  
REVISED:

THOMAS STYRBICKI  
STATE DESIGN ENGINEER

STANDARD  
PLAN  
5-297.250

6 OF 6



STANDARD PLAN

STATE PROJ. NO.

SHEET NO.

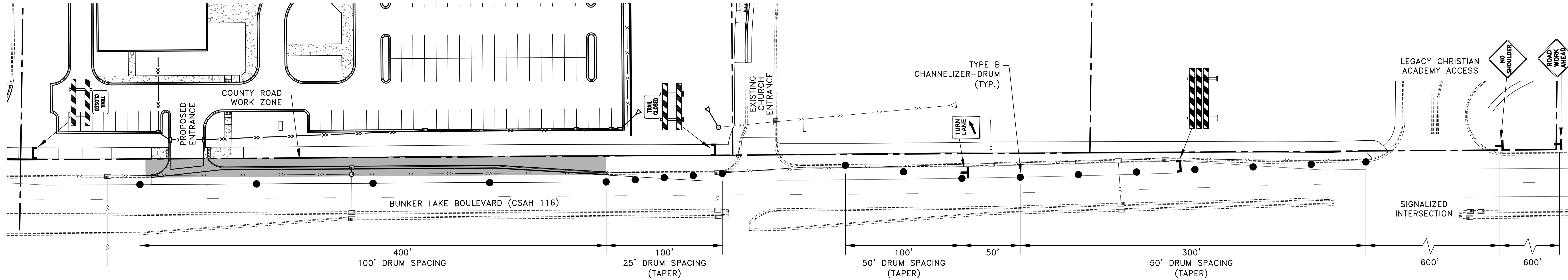
C12

TRUNK HWY.

TOTAL SHEETS

C21

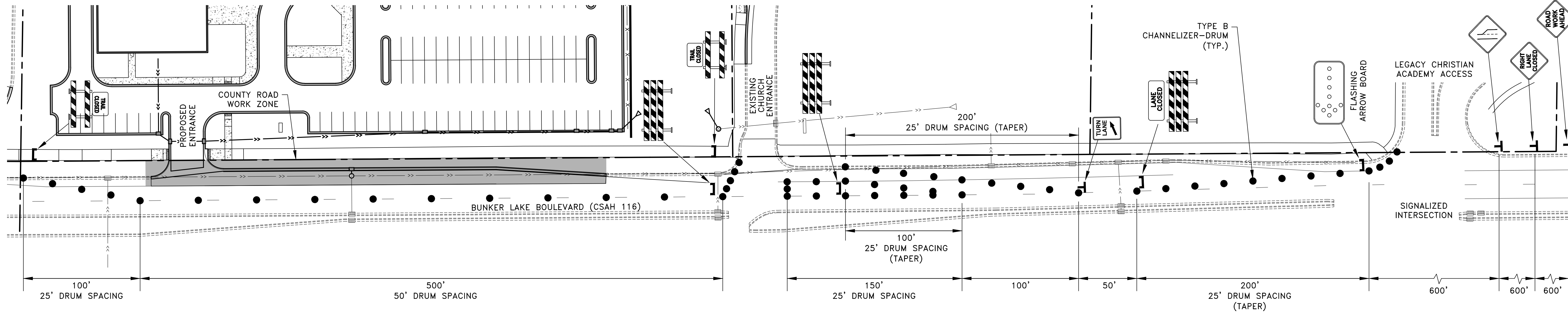
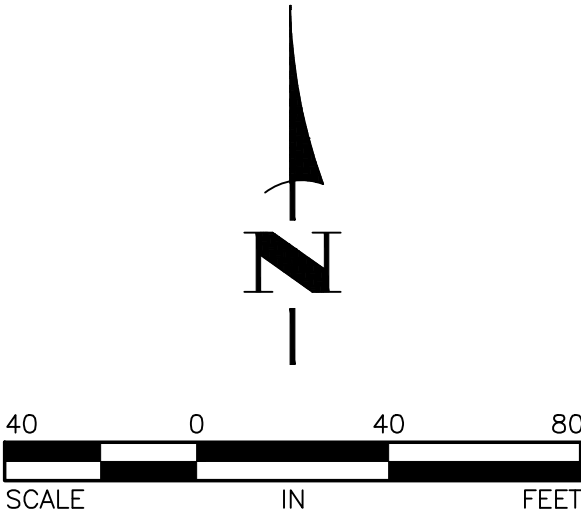




GENERAL NOTES:

1. PHASE 1 WORK WILL INCLUDE CURB REMOVAL, GRADING, STORM SEWER AND CURB CONSTRUCTION AND PLACEMENT OF THE TWO BASE COURSES OF BITUMINOUS. PHASE 1 WORK SHALL BE COMPLETED WITHIN 10 DAYS OF INITIALLY CLOSING THE SHOULDER.
2. PHASE 2 WORK WILL INCLUDE BITUMINOUS MILLING AND PLACEMENT OF THE BITUMINOUS WEAR COURSE. PHASE 2 WORK SHALL BE COMPLETED BETWEEN THE HOURS OF 9:00 A.M. AND 2:00 P.M. AND MUST BE COMPLETED THE SAME DAY THAT THE LANE IS CLOSED. THE LANE CLOSURE WILL NOT BE ALLOWED BETWEEN THE HOURS OF 2:00 P.M. AND 9:00 A.M.
3. CONTRACTOR SHALL COORDINATE SHOULDER AND LANE CLOSURES WITH THE ANOKA COUNTY HIGHWAY DEPARTMENT.
4. THE TRAFFIC CONTROL DEPICTED IS CONSIDERED THE MINIMUM TRAFFIC CONTROL REQUIRED TO COMPLETE THE CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO PROVIDE A SAFE WORK ZONE AT ALL TIMES.
5. THE CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN AND BICYCLE ACCESS ROUTE LAYOUTS AND DETOURS FOR ANY PROPOSED SIDEWALK OR TRAIL CLOSURES.
6. ALL SIGNS SHALL BE REMOVED WITHIN 24 HOURS AFTER THEY ARE NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
7. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE MOST CURRENT VERSION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD.)

PHASE 1-SHOULDER CLOSURE



PHASE 2-LANE CLOSURE



DATE	REVISION
7/18/25	PLAN REVISIONS PER CITY AND COUNTY REVIEW
9/26/25	PLAN REVISIONS PER CITY REVIEW
11/10/25	PLAN REVISIONS PER CITY REVIEW

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.

*Timothy A. Eggen*  
TIMOTHY A. EGGEN, P.E.  
Date 5/16/25 Lic. No. 43362

DESIGNED BY:	TAE
DRAWN BY:	TAE
CHECKED BY:	CJJ



**Hakanson Anderson**  
Civil Engineers and Land Surveyors  
3601 Thurston Ave., Anoka, Minnesota 55303  
763-427-5860 FAX 763-427-0520  
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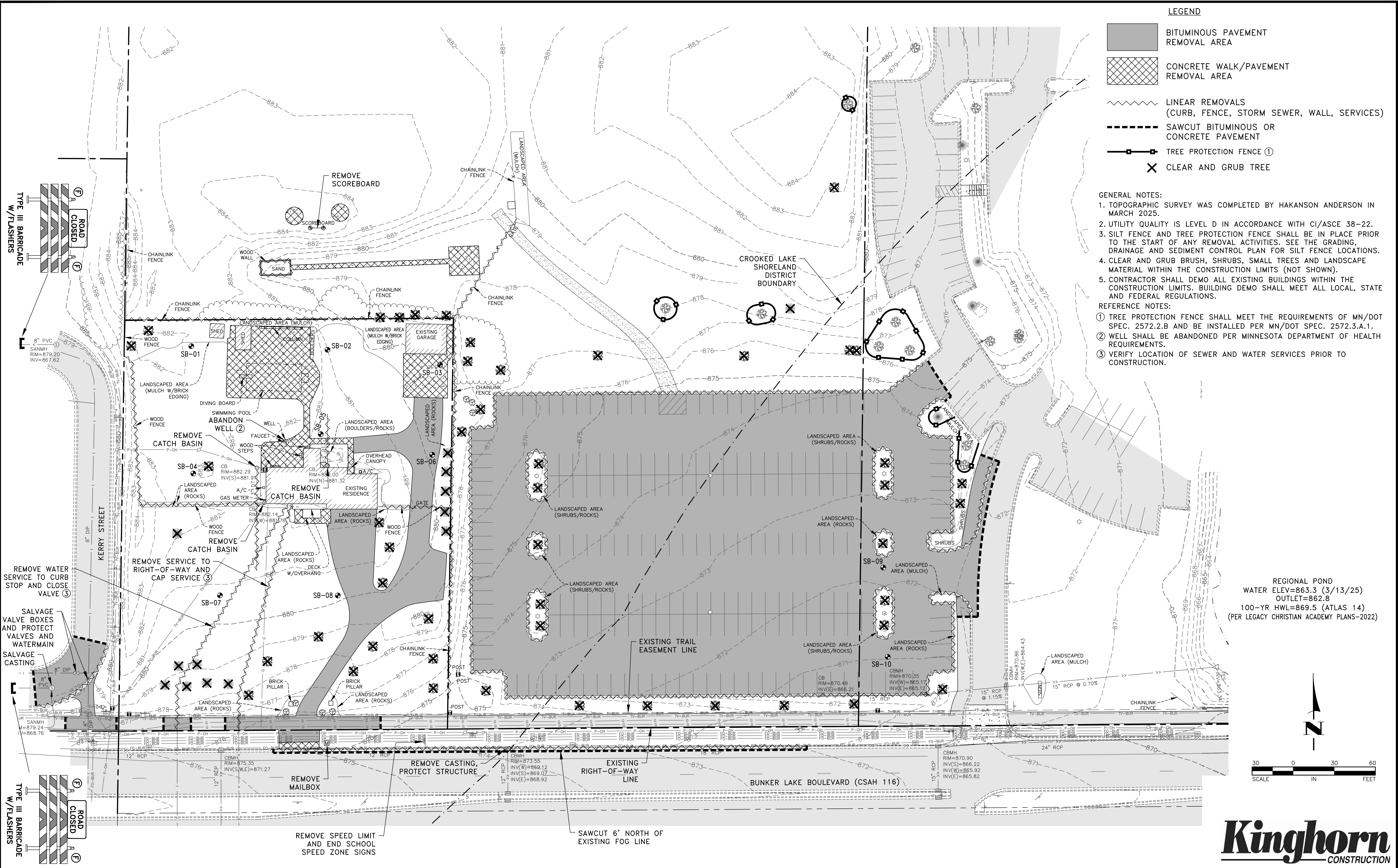
MEADOW CREEK CHURCH

TRAFFIC CONTROL PLAN  
CSAH 116  
CITY OF ANDOVER, MINNESOTA

SHEET  
C13  
OF  
C21  
SHEETS



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LEGEND

- BITUMINOUS PAVEMENT REMOVAL AREA
- CONCRETE WALK/PAVEMENT REMOVAL AREA
- LINEAR REMOVALS (CURB, FENCE, STORM SEWER, WALL, SERVICES)
- SAWCUT BITUMINOUS OR CONCRETE PAVEMENT
- TREE PROTECTION FENCE ①
- CLEAR AND GRUB TREE

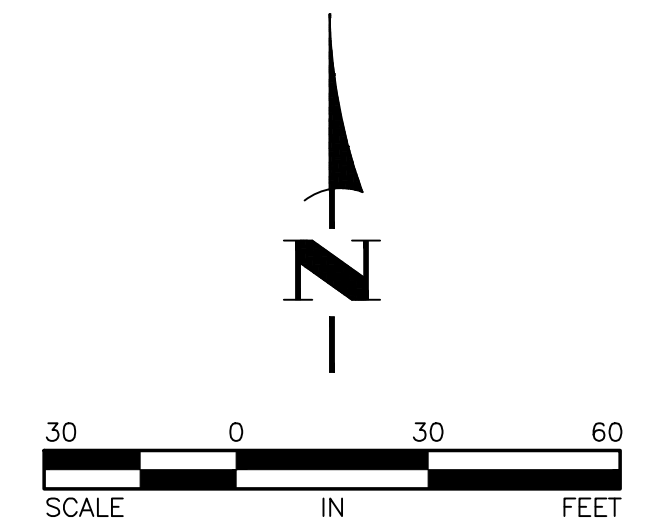
GENERAL NOTES:

- TOPOGRAPHIC SURVEY WAS COMPLETED BY HAKANSON ANDERSON IN MARCH 2025.
- UTILITY QUALITY IS LEVEL D IN ACCORDANCE WITH CI/ASCE 38-22.
- SILT FENCE AND TREE PROTECTION FENCE SHALL BE IN PLACE PRIOR TO THE START OF ANY REMOVAL ACTIVITIES. SEE THE GRADING, DRAINAGE AND SEDIMENT CONTROL PLAN FOR SILT FENCE LOCATIONS.
- CLEAR AND GRUB BRUSH, SHRUBS, SMALL TREES AND LANDSCAPE MATERIAL WITHIN THE CONSTRUCTION LIMITS (NOT SHOWN).
- CONTRACTOR SHALL DEMO ALL EXISTING BUILDINGS WITHIN THE CONSTRUCTION LIMITS. BUILDING DEMO SHALL MEET ALL LOCAL, STATE AND FEDERAL REGULATIONS.

REFERENCE NOTES:

- TREE PROTECTION FENCE SHALL MEET THE REQUIREMENTS OF MN/DOT SPEC. 2572.2.B AND BE INSTALLED PER MN/DOT SPEC. 2572.3.A.1.
- WELL SHALL BE ABANDONED PER MINNESOTA DEPARTMENT OF HEALTH REQUIREMENTS.
- VERIFY LOCATION OF SEWER AND WATER SERVICES PRIOR TO CONSTRUCTION.

REGIONAL POND  
WATER ELEV=863.3 (3/13/25)  
OUTLET=862.8  
100-YR HWL=869.5 (ATLAS 14)  
(PER LEGACY CHRISTIAN ACADEMY PLANS-2022)



**Kinghorn**  
CONSTRUCTION

DATE	REVISION
7/18/25	PLAN REVISIONS PER CITY REVIEW
8/20/25	PLAN REVISIONS PER COUNTY REVIEW
9/26/25	PLAN REVISIONS PER CITY REVIEW

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MEADOW CREEK CHURCH

EXISTING TOPOGRAPHY AND  
REMOVALS PLAN  
CITY OF ANDOVER, MINNESOTA

SHEET  
C14  
OF  
C21  
SHEETS



GENERAL NOTES:  
1. ALL STREET SIGNS SHALL MEET THE REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.  
2. ALL PARKING LOT PAVEMENT MARKINGS SHALL BE WHITE.  
REFERENCE NOTES:  
① AREA SHOWN ONLY INCLUDES THE AREA WITHIN THE PROJECT BOUNDARY.

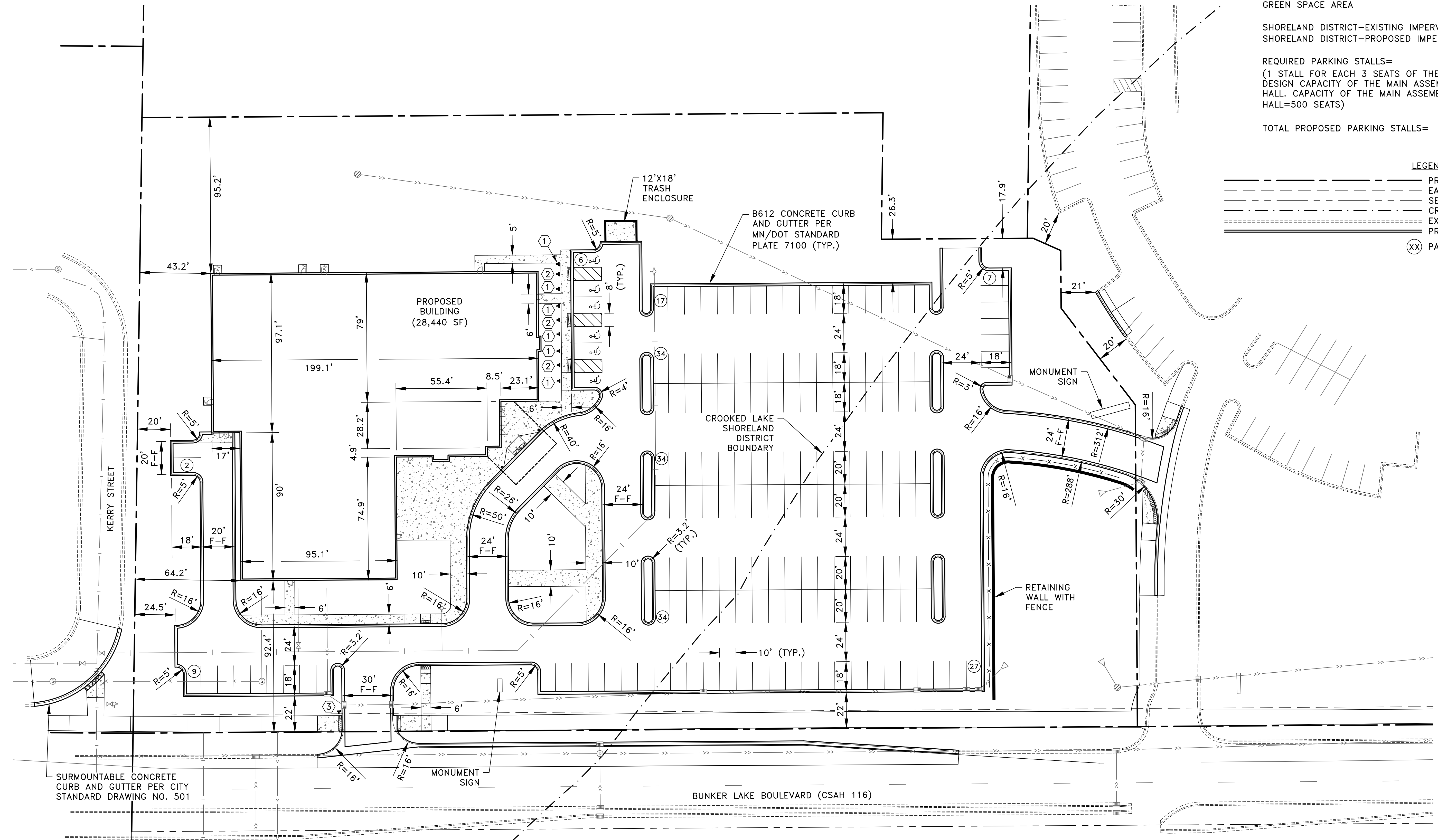
PROPERTY SUMMARY  
ZONING: R-4 SINGLE FAMILY URBAN RESIDENTIAL  
FRONT YARD BUILDING SETBACK: 35'  
REAR YARD BUILDING SETBACK: 30'  
SIDE YARD BUILDING SETBACK: 35'  
CSAH 116 BUILDING SETBACK: 50'  
FRONT YARD PARKING SETBACK: 20'  
SIDE YARD PARKING SETBACK: 10'  
REAR YARD PARKING SETBACK: 10'

LOT SUMMARY  
TOTAL LOT AREA= 212,314 SF  
TOTAL DISTURBED AREA= 257,793 SF  
PRE-CONSTRUCTION IMPERVIOUS AREA= 100,082 SF  
POST CONSTRUCTION IMPERVIOUS AREA= 122,515 SF (58%)  
BUILDING COVERAGE AREA 28,440 SF (13%)  
GREEN SPACE AREA 89,799 SF (42%)

SHORELAND DISTRICT-EXISTING IMPERVIOUS AREA 52,931 SF ①  
SHORELAND DISTRICT-PROPOSED IMPERVIOUS AREA 39,540 SF ①

REQUIRED PARKING STALLS= 167 STALLS  
(1 STALL FOR EACH 3 SEATS OF THE DESIGN CAPACITY OF THE MAIN ASSEMBLY HALL. CAPACITY OF THE MAIN ASSEMBLY HALL=500 SEATS)

TOTAL PROPOSED PARKING STALLS= 170 STALLS (INC. 6 HC STALLS)

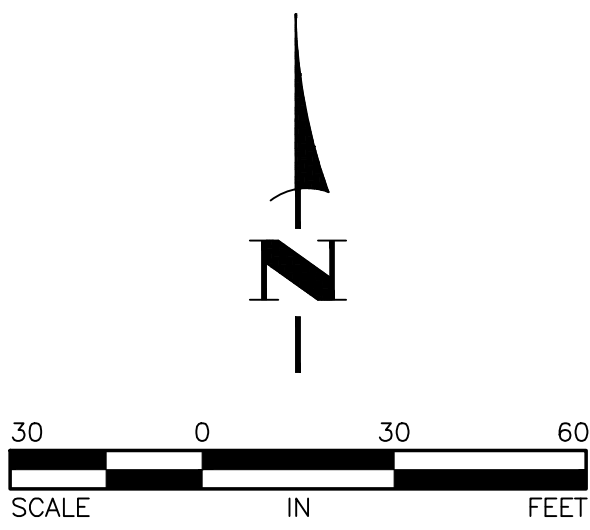


LEGEND  
--- PROPERTY LINE  
--- EASEMENT LINE  
--- SECTION LINE  
--- CROOKED LAKE SHORELAND DISTRICT BOUNDARY  
--- EXISTING CONCRETE CURB  
--- PROPOSED CONCRETE CURB  
(XX) PARKING STALL QUANTITY

SIGN LEGEND  
①  
PARKING  
VEHICLES  
REQUIRED  
UP TO \$200 FINE  
FOR VIOLATION  
R7-8m  
12"X18"

②  
ACCESS  
AISLE  
NO  
PARKING  
12"X18"

③  
STOP  
R1-1  
30"X30"



**Kinghorn**  
CONSTRUCTION

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DATE	REVISION
7/18/25	PLAN REVISIONS PER CITY REVIEW
7/28/25	PLAN REVISIONS PER SITE PLAN CHANGES
9/26/25	PLAN REVISIONS PER CITY REVIEW
11/10/25	PLAN REVISIONS PER CITY REVIEW

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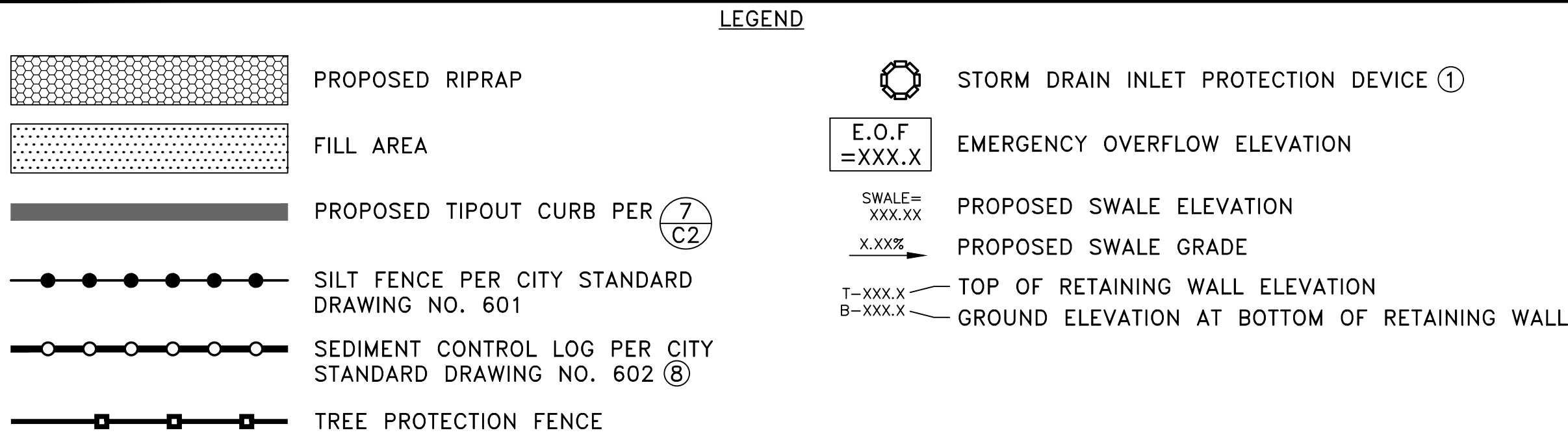
MEADOW CREEK CHURCH

SITE PLAN  
CITY OF ANDOVER, MINNESOTA

SHEET  
C15  
OF  
C21  
SHEETS



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**LOT SUMMARY**

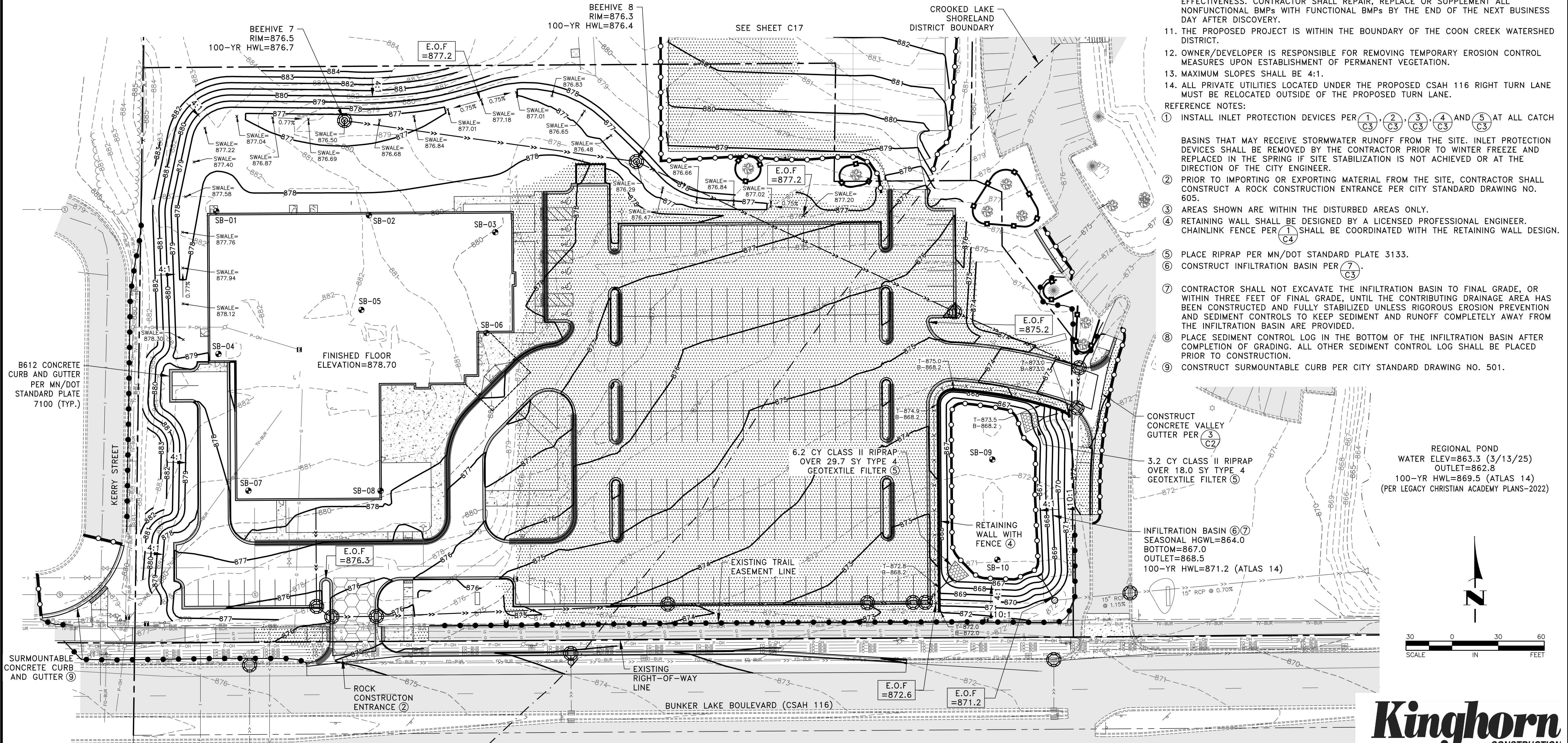
TOTAL DISTURBED AREA= 5.92 ACRES

PRE-CONSTRUCTION IMPERVIOUS AREA= 2.45 ACRES (3)

POST CONSTRUCTION IMPERVIOUS AREA= 3.01 ACRES (3)

- GENERAL NOTES:**
1. VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
  2. SEE SHEET C18 FOR THE STAKING PLAN.
  3. SEE SHEET C19 FOR THE UTILITY PLAN.
  4. SEE SHEET C20 FOR THE CSAH 116 TURN LANE CONSTRUCTION PLAN.
  5. SEE SHEET C21 FOR THE RESTORATION AND PAVING PLAN.
  6. CONTRACTOR SHALL IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS AND COMPLETE STABILIZATION WITHIN SEVEN CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES.
  7. CONTRACTOR SHALL STABILIZE SOIL STOCKPILES WITHIN SEVEN DAYS OF ROUGH GRADING OR INACTIVITY.
  8. CONTRACTOR SHALL DETERMINE A LOCATION FOR CONCRETE AND OTHER WASHOUT WASTE. A SIGN SHALL BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY THAT REQUIRES SITE PERSONNEL TO UTILIZE THE PROPER FACILITIES FOR DISPOSAL OF CONCRETE AND OTHER WASTES.
  9. STREET SWEEPING OF ROAD SURFACES WHERE SEDIMENT IS TRANSPORTED SHALL BE COMPLETED DAILY.
  10. CONTRACTOR SHALL INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs AND POLLUTION PREVENTION MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS. CONTRACTOR SHALL REPAIR, REPLACE OR SUPPLEMENT ALL NONFUNCTIONAL BMPs WITH FUNCTIONAL BMPs BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY.
  11. THE PROPOSED PROJECT IS WITHIN THE BOUNDARY OF THE COON CREEK WATERSHED DISTRICT.
  12. OWNER/DEVELOPER IS RESPONSIBLE FOR REMOVING TEMPORARY EROSION CONTROL MEASURES UPON ESTABLISHMENT OF PERMANENT VEGETATION.
  13. MAXIMUM SLOPES SHALL BE 4:1.
  14. ALL PRIVATE UTILITIES LOCATED UNDER THE PROPOSED CSAH 116 RIGHT TURN LANE MUST BE RELOCATED OUTSIDE OF THE PROPOSED TURN LANE.

- REFERENCE NOTES:**
- (1) INSTALL INLET PROTECTION DEVICES PER (1) C3, (2) C3, (3) C3, (4) C3 AND (5) C3 AT ALL CATCH BASINS THAT MAY RECEIVE STORMWATER RUNOFF FROM THE SITE. INLET PROTECTION DEVICES SHALL BE REMOVED BY THE CONTRACTOR PRIOR TO WINTER FREEZE AND REPLACED IN THE SPRING IF SITE STABILIZATION IS NOT ACHIEVED OR AT THE DIRECTION OF THE CITY ENGINEER.
  - (2) PRIOR TO IMPORTING OR EXPORTING MATERIAL FROM THE SITE, CONTRACTOR SHALL CONSTRUCT A ROCK CONSTRUCTION ENTRANCE PER CITY STANDARD DRAWING NO. 605.
  - (3) AREAS SHOWN ARE WITHIN THE DISTURBED AREAS ONLY.
  - (4) RETAINING WALL SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER. CHAINLINK FENCE PER (1) C4 SHALL BE COORDINATED WITH THE RETAINING WALL DESIGN.
  - (5) PLACE RIPRAP PER MN/DOT STANDARD PLATE 3133.
  - (6) CONSTRUCT INFILTRATION BASIN PER (7) C3.
  - (7) CONTRACTOR SHALL NOT EXCAVATE THE INFILTRATION BASIN TO FINAL GRADE, OR WITHIN THREE FEET OF FINAL GRADE, UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED UNLESS RIGOROUS EROSION PREVENTION AND SEDIMENT CONTROLS TO KEEP SEDIMENT AND RUNOFF COMPLETELY AWAY FROM THE INFILTRATION BASIN ARE PROVIDED.
  - (8) PLACE SEDIMENT CONTROL LOG IN THE BOTTOM OF THE INFILTRATION BASIN AFTER COMPLETION OF GRADING. ALL OTHER SEDIMENT CONTROL LOG SHALL BE PLACED PRIOR TO CONSTRUCTION.
  - (9) CONSTRUCT SURMOUNTABLE CURB PER CITY STANDARD DRAWING NO. 501.



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TAE

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MEADOW CREEK CHURCH

GRADING, DRAINAGE AND  
SEDIMENT CONTROL PLAN

CITY OF ANDOVER, MINNESOTA

SHEET  
C16  
OF  
C21  
SHEETS

**Kinghorn**  
CONSTRUCTION

3395.28



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LEGEND

FILL AREA

PROPOSED TIPOUT CURB PER 

7  
C2

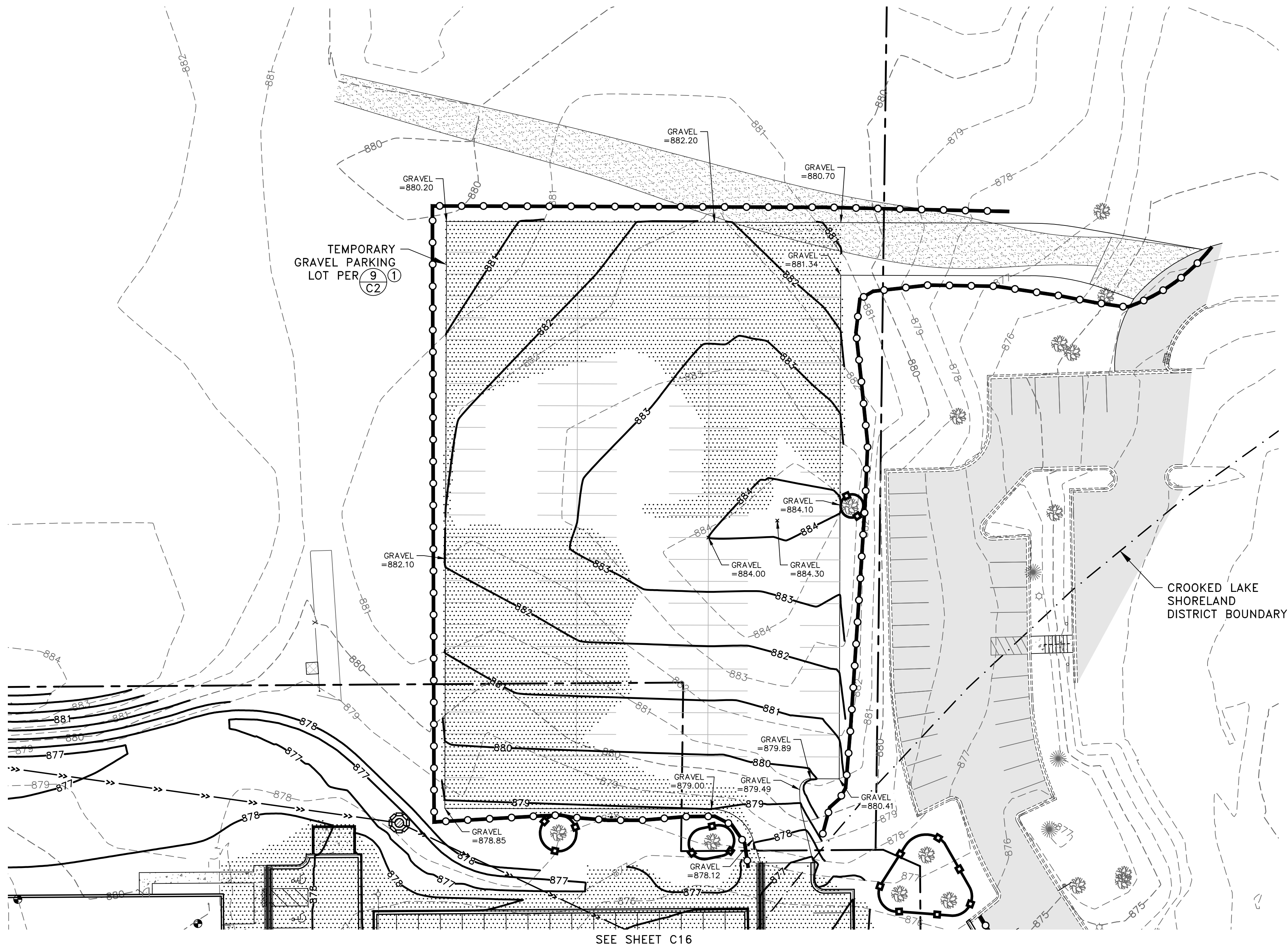
SEDIMENT CONTROL LOG PER CITY  
STANDARD DRAWING NO. 602

TREE PROTECTION FENCE

STORM DRAIN INLET PROTECTION DEVICE

GRAVEL  
=XXX.XX

PROPOSED SPOT ELEVATION (GRAVEL)



REFERENCE NOTES:  
① WITHIN 30 DAYS OF WHEN THE NEW BITUMINOUS PARKING LOT IS COMPLETE AND OPEN FOR USE, CONTRACTOR SHALL REMOVE GRAVEL SURFACE AND RESTORE THE AREA WITH A MINIMUM OF 4" OF LOAM TOPSOIL, SOUTHERN BOULEVARD SEED MIX, FERTILIZER AND HYDRAULIC MULCH MATRIX.



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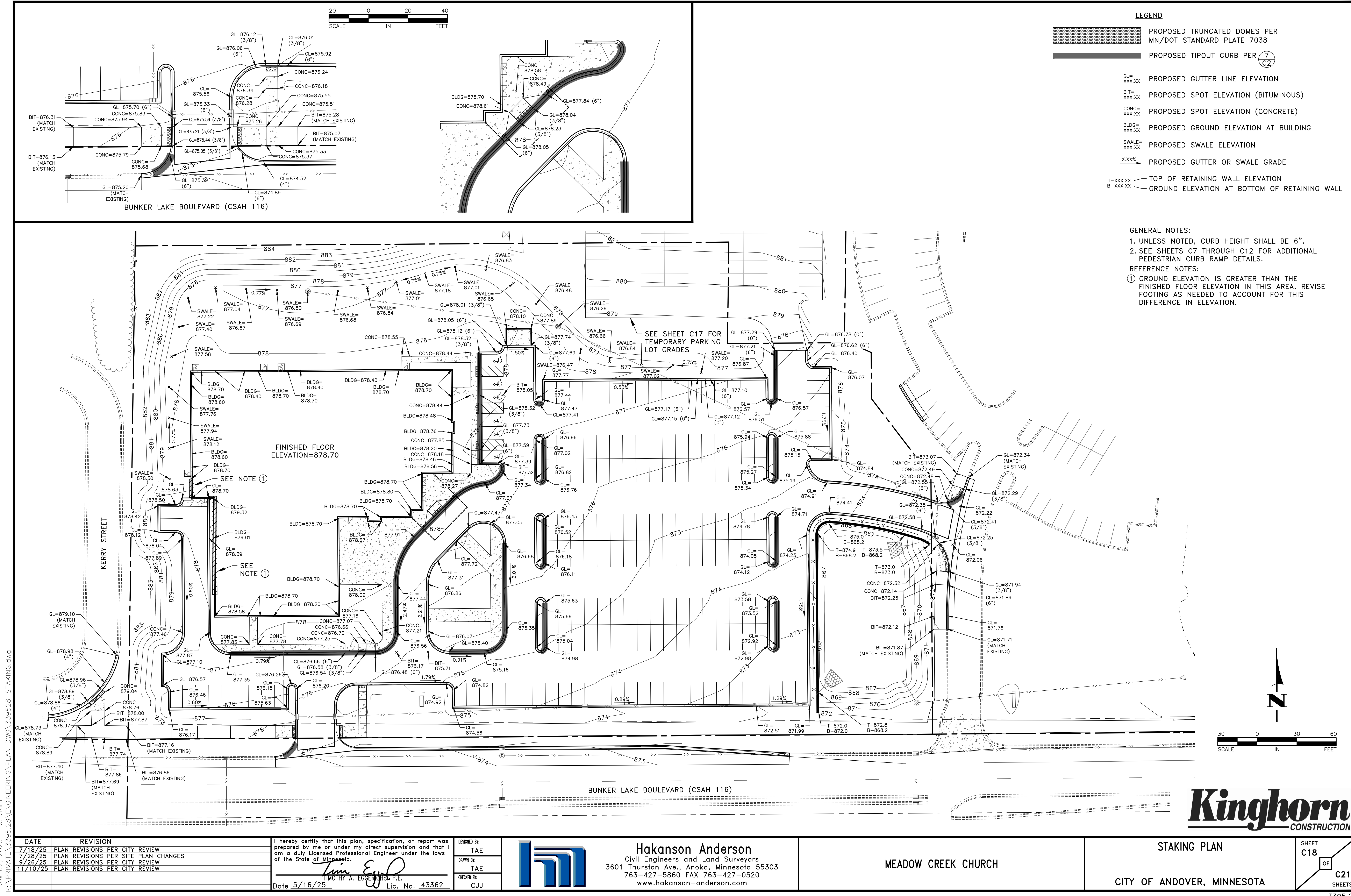
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MEADOW CREEK CHURCH

GRADING, DRAINAGE AND  
SEDIMENT CONTROL PLAN  
CITY OF ANDOVER, MINNESOTA

SHEET  
C17  
OF  
C21  
SHEETS



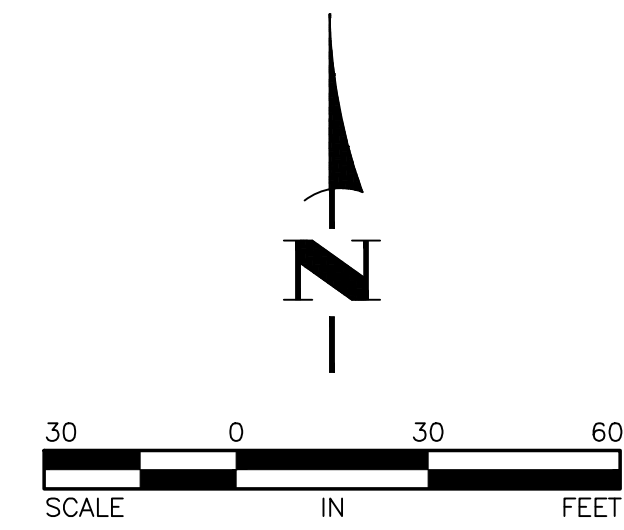


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- LEGEND**
- PROPOSED TRUNCATED DOMES PER MN/DOT STANDARD PLATE 7038
  - PROPOSED TIPOUT CURB PER 7 C2
  - GL=XXX.XX PROPOSED GUTTER LINE ELEVATION
  - BIT=XXX.XX PROPOSED SPOT ELEVATION (BITUMINOUS)
  - CONC=XXX.XX PROPOSED SPOT ELEVATION (CONCRETE)
  - BLDG=XXX.XX PROPOSED GROUND ELEVATION AT BUILDING
  - SWALE=XXX.XX PROPOSED SWALE ELEVATION
  - X.XX% PROPOSED GUTTER OR SWALE GRADE
  - T-XXX.XX TOP OF RETAINING WALL ELEVATION
  - B-XXX.XX GROUND ELEVATION AT BOTTOM OF RETAINING WALL

- GENERAL NOTES:**
- UNLESS NOTED, CURB HEIGHT SHALL BE 6".
  - SEE SHEETS C7 THROUGH C12 FOR ADDITIONAL PEDESTRIAN CURB RAMP DETAILS.
- REFERENCE NOTES:**
- GROUND ELEVATION IS GREATER THAN THE FINISHED FLOOR ELEVATION IN THIS AREA. REVISE FOOTING AS NEEDED TO ACCOUNT FOR THIS DIFFERENCE IN ELEVATION.



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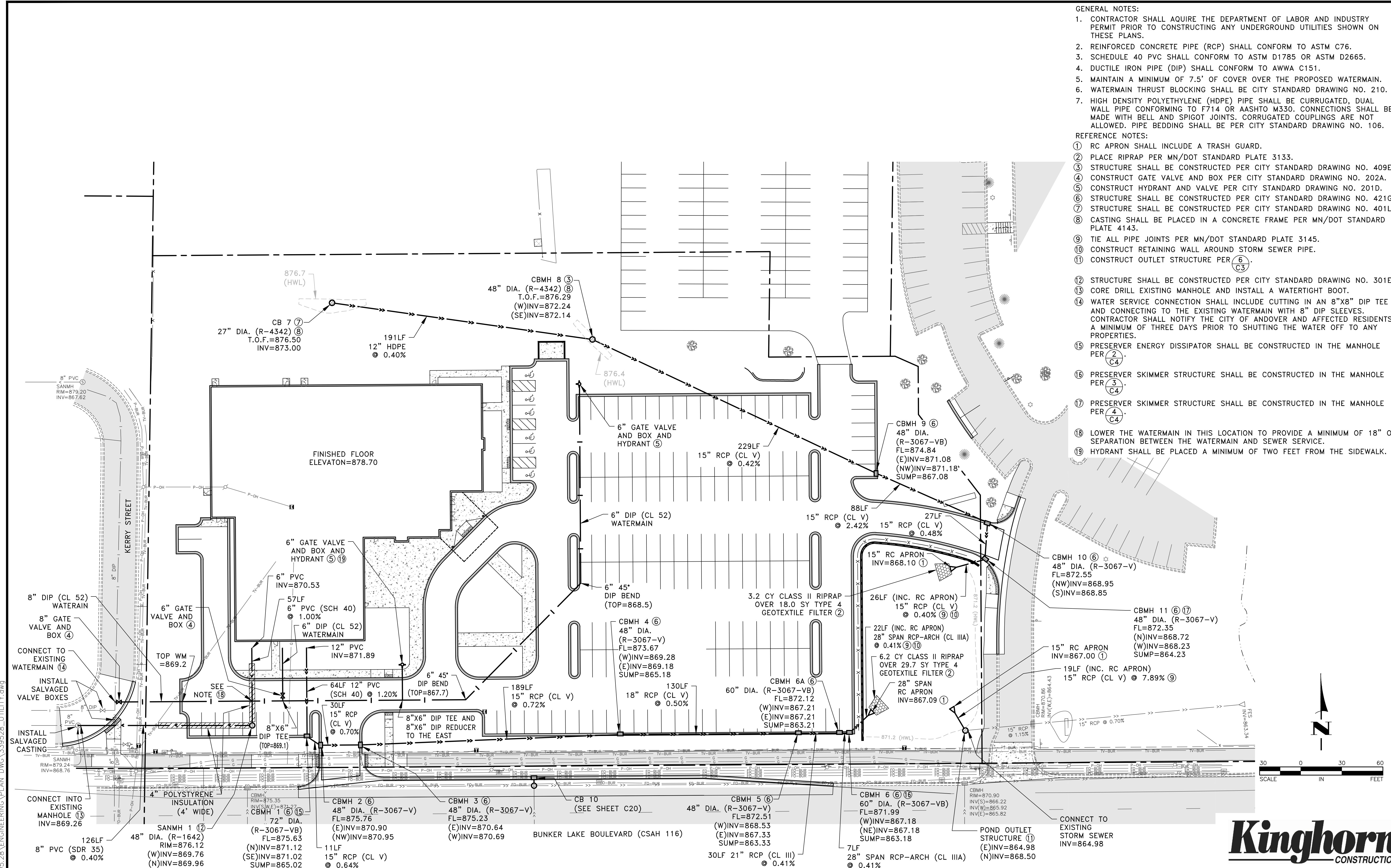
MEADOW CREEK CHURCH

STAKING PLAN  
CITY OF ANDOVER, MINNESOTA

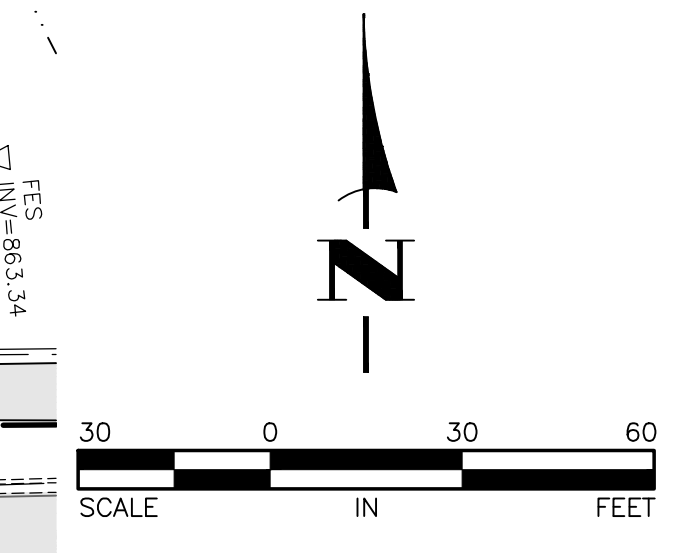
SHEET  
C18  
OF  
C21  
SHEETS



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- GENERAL NOTES:
- CONTRACTOR SHALL ACQUIRE THE DEPARTMENT OF LABOR AND INDUSTRY PERMIT PRIOR TO CONSTRUCTING ANY UNDERGROUND UTILITIES SHOWN ON THESE PLANS.
  - REINFORCED CONCRETE PIPE (RCP) SHALL CONFORM TO ASTM C76.
  - SCHEDULE 40 PVC SHALL CONFORM TO ASTM D1785 OR ASTM D2665.
  - DUCTILE IRON PIPE (DIP) SHALL CONFORM TO AWWA C151.
  - MAINTAIN A MINIMUM OF 7.5' OF COVER OVER THE PROPOSED WATERMAIN.
  - WATERMAIN THRUST BLOCKING SHALL BE CITY STANDARD DRAWING NO. 210.
  - HIGH DENSITY POLYETHYLENE (HDPE) PIPE SHALL BE CORRUGATED, DUAL WALL PIPE CONFORMING TO F714 OR AASHTO M330. CONNECTIONS SHALL BE MADE WITH BELL AND SPIGOT JOINTS. CORRUGATED COUPLINGS ARE NOT ALLOWED. PIPE BEDDING SHALL BE PER CITY STANDARD DRAWING NO. 106.
- REFERENCE NOTES:
- RC APRON SHALL INCLUDE A TRASH GUARD.
  - PLACE RIPRAP PER MN/DOT STANDARD PLATE 3133.
  - STRUCTURE SHALL BE CONSTRUCTED PER CITY STANDARD DRAWING NO. 409E.
  - CONSTRUCT GATE VALVE AND BOX PER CITY STANDARD DRAWING NO. 202A.
  - CONSTRUCT HYDRANT AND VALVE PER CITY STANDARD DRAWING NO. 201D.
  - STRUCTURE SHALL BE CONSTRUCTED PER CITY STANDARD DRAWING NO. 421G.
  - STRUCTURE SHALL BE CONSTRUCTED PER CITY STANDARD DRAWING NO. 401L.
  - CASTING SHALL BE PLACED IN A CONCRETE FRAME PER MN/DOT STANDARD PLATE 4143.
  - TIE ALL PIPE JOINTS PER MN/DOT STANDARD PLATE 3145.
  - CONSTRUCT RETAINING WALL AROUND STORM SEWER PIPE.
  - CONSTRUCT OUTLET STRUCTURE PER (6) C3.
  - STRUCTURE SHALL BE CONSTRUCTED PER CITY STANDARD DRAWING NO. 301E.
  - CORE DRILL EXISTING MANHOLE AND INSTALL A WATERTIGHT BOOT.
  - WATER SERVICE CONNECTION SHALL INCLUDE CUTTING IN AN 8"x8" DIP TEE AND CONNECTING TO THE EXISTING WATERMAIN WITH 8" DIP SLEEVES. CONTRACTOR SHALL NOTIFY THE CITY OF ANDOVER AND AFFECTED RESIDENTS A MINIMUM OF THREE DAYS PRIOR TO SHUTTING THE WATER OFF TO ANY PROPERTIES.
  - PRESERVER ENERGY DISSIPATOR SHALL BE CONSTRUCTED IN THE MANHOLE PER (2) C4.
  - PRESERVER SKIMMER STRUCTURE SHALL BE CONSTRUCTED IN THE MANHOLE PER (3) C4.
  - PRESERVER SKIMMER STRUCTURE SHALL BE CONSTRUCTED IN THE MANHOLE PER (4) C4.
  - LOWER THE WATERMAIN IN THIS LOCATION TO PROVIDE A MINIMUM OF 18" OF SEPARATION BETWEEN THE WATERMAIN AND SEWER SERVICE.
  - HYDRANT SHALL BE PLACED A MINIMUM OF TWO FEET FROM THE SIDEWALK.



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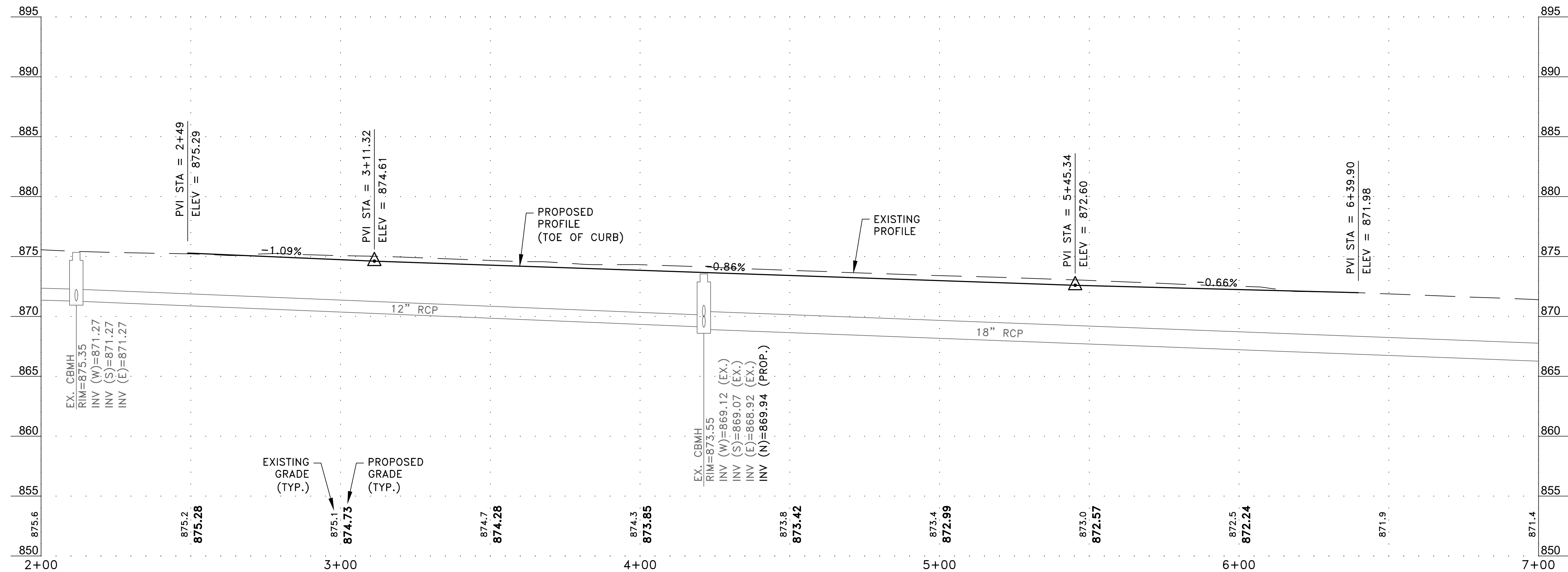
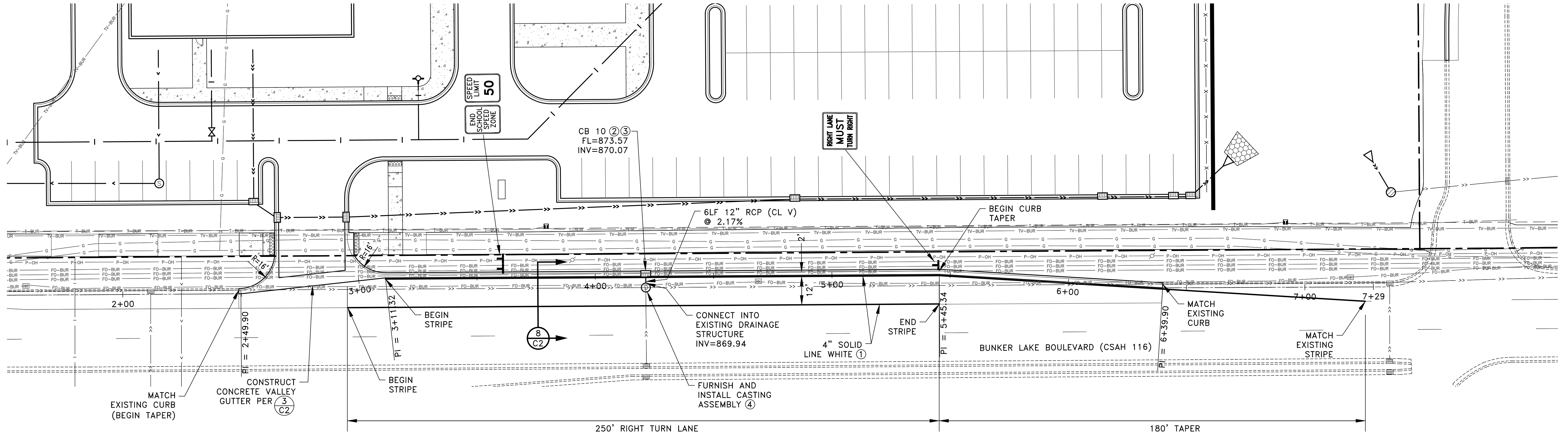
MEADOW CREEK CHURCH

UTILITY PLAN  
CITY OF ANDOVER, MINNESOTA  
SHEET C19 OF C21  
SHEETS  
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- GENERAL NOTES:
1. ALL PRIVATE UTILITIES LOCATED UNDER THE PROPOSED CSAH 116 RIGHT TURN LANE MUST BE RELOCATED OUTSIDE OF THE PROPOSED TURN LANE.
- REFERENCE NOTES:
- ① STRIPING MATERIAL SHALL BE GROUND IN 4" PREFORM TAPE.
  - ② CATCH BASIN SHALL MEET THE REQUIREMENTS OF MN/DOT STANDARD PLATE 4006-DESIGN G.
  - ③ CASTING SHALL BE PER MN/DOT STANDARD PLATES 4125, 4134 AND 4154.
  - ④ CASTING SHALL BE PER MN/DOT STANDARD PLATES 4101 (CASTING 700-4) AND 4110 (CASTING 715).

**Kinghorn**  
CONSTRUCTION

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MEADOW CREEK CHURCH

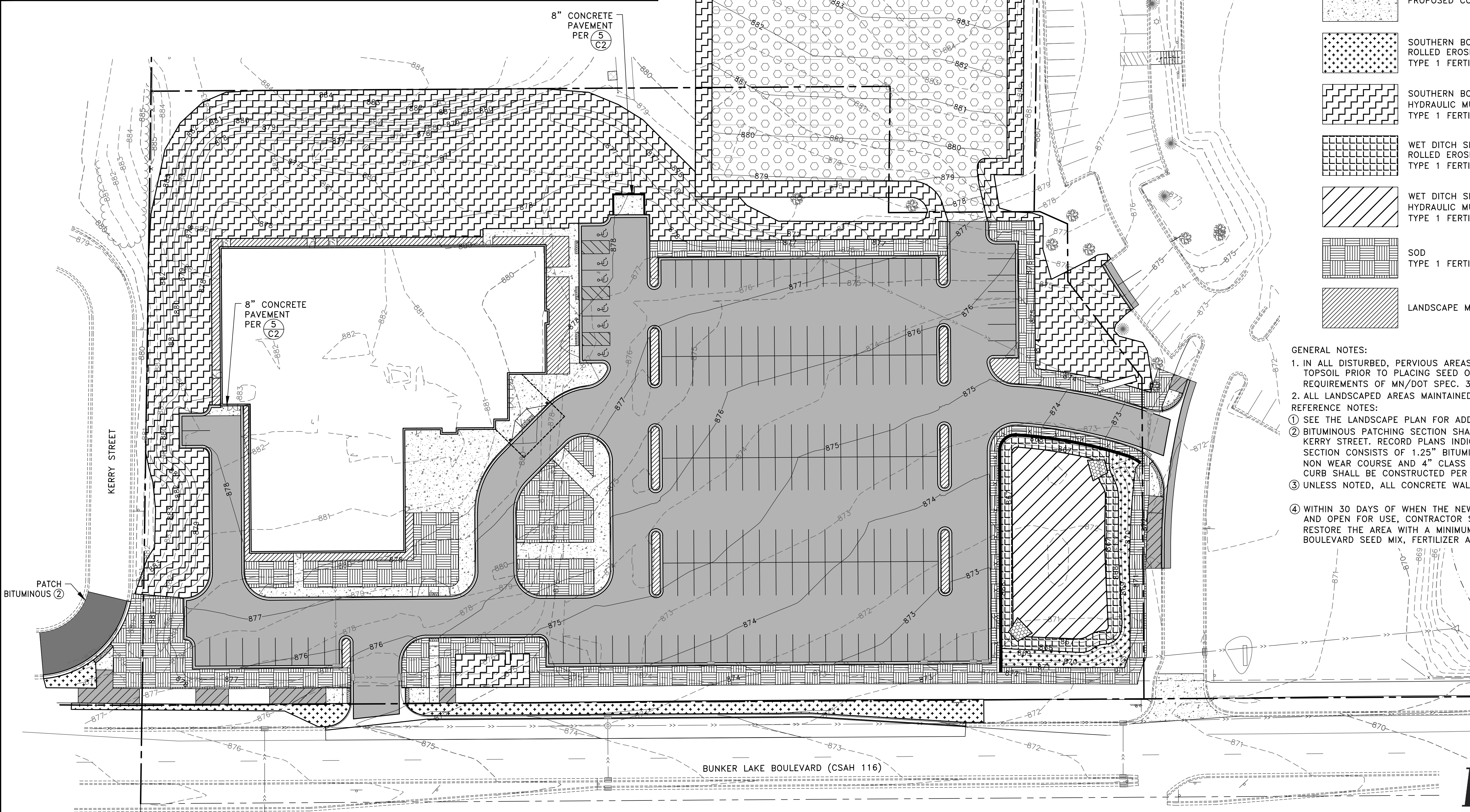
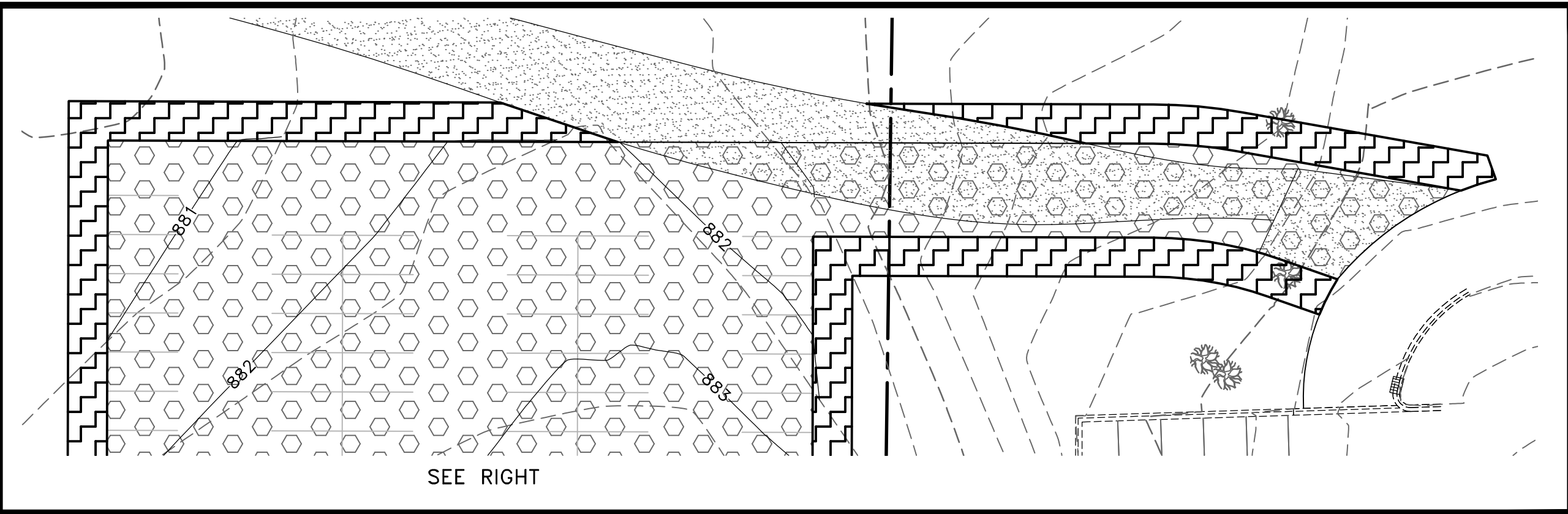
TURN LANE CONSTRUCTION PLAN  
CSAH 116  
CITY OF ANDOVER, MINNESOTA

SHEET  
C20  
OF  
C21  
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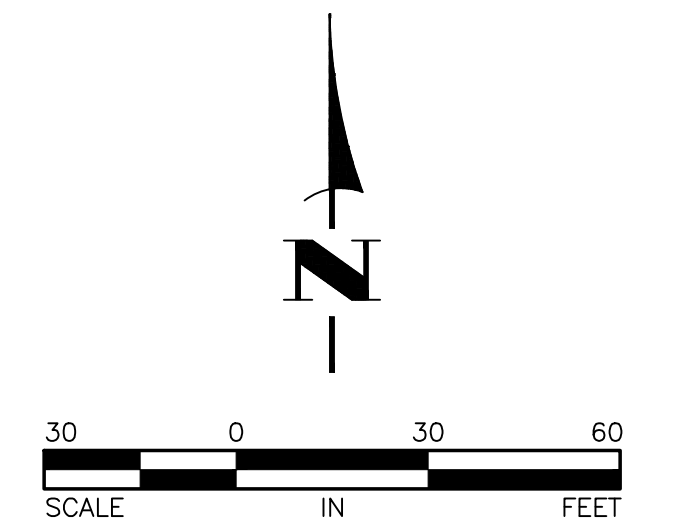
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LEGEND

- PROPOSED BITUMINOUS PAVEMENT PER (1) C2
- PROPOSED BITUMINOUS TRAIL PAVEMENT PER (6) C2
- PROPOSED TEMPORARY GRAVEL SURFACE PER (9) (4) C2
- PROPOSED CONCRETE WALK (3)
- SOUTHERN BOULEVARD SEED MIX (160 POUNDS/ACRE)  
ROLLED EROSION PREVENTION CATEGORY 20  
TYPE 1 FERTILIZER (300 POUNDS/ACRE)
- SOUTHERN BOULEVARD SEED MIX (160 POUNDS/ACRE)  
HYDRAULIC MULCH MATRIX (2500 POUNDS/ACRE)  
TYPE 1 FERTILIZER (300 POUNDS/ACRE)
- WET DITCH SEED MIX (20 POUNDS/ACRE)  
ROLLED EROSION PREVENTION CATEGORY 20  
TYPE 1 FERTILIZER (300 POUNDS/ACRE)
- WET DITCH SEED MIX (20 POUNDS/ACRE)  
HYDRAULIC MULCH MATRIX (2500 POUNDS/ACRE)  
TYPE 1 FERTILIZER (300 POUNDS/ACRE)
- SOD  
TYPE 1 FERTILIZER (300 POUNDS/ACRE)
- LANDSCAPE MATERIAL (1)

- GENERAL NOTES:
- IN ALL DISTURBED, PERVIOUS AREAS, SPREAD A MINIMUM OF 4" OF LOAM TOPSOIL PRIOR TO PLACING SEED OR SOD. TOPSOIL SHALL MEET THE REQUIREMENTS OF MN/DOT SPEC. 3877.2.B.
  - ALL LANDSCAPED AREAS MAINTAINED BY OWNER SHALL BE IRRIGATED.
- REFERENCE NOTES:
- SEE THE LANDSCAPE PLAN FOR ADDITIONAL INFORMATION.
  - BITUMINOUS PATCHING SECTION SHALL MATCH THE EXISTING SECTION ON KERRY STREET. RECORD PLANS INDICATE THAT THE EXISTING STREET SECTION CONSISTS OF 1.25" BITUMINOUS WEAR COURSE, 1.5" BITUMINOUS NON WEAR COURSE AND 4" CLASS 5 AGGREGATE BASE. SURMOUNTABLE CURB SHALL BE CONSTRUCTED PER CITY STANDARD DRAWING NO. 501.
  - UNLESS NOTED, ALL CONCRETE WALK SHALL BE PER (2) C2 OR (4) C2.
  - WITHIN 30 DAYS OF WHEN THE NEW BITUMINOUS PARKING LOT IS COMPLETE AND OPEN FOR USE, CONTRACTOR SHALL REMOVE GRAVEL SURFACE AND RESTORE THE AREA WITH A MINIMUM OF 4" OF LOAM TOPSOIL, SOUTHERN BOULEVARD SEED MIX, FERTILIZER AND HYDRAULIC MULCH MATRIX.



DATE	REVISION
7/18/25	PLAN REVISIONS PER CITY REVIEW
7/28/25	PLAN REVISIONS PER SITE PLAN CHANGES
9/26/25	PLAN REVISIONS PER CITY REVIEW
11/10/25	PLAN REVISIONS PER CITY REVIEW

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.

*Timothy A. Eggen*  
TIMOTHY A. EGGEN, P.E.  
Date 5/16/25 Lic. No. 43362

DESIGNED BY:  
TAE  
DRAWN BY:  
TAE  
CHECKED BY:  
CJJ



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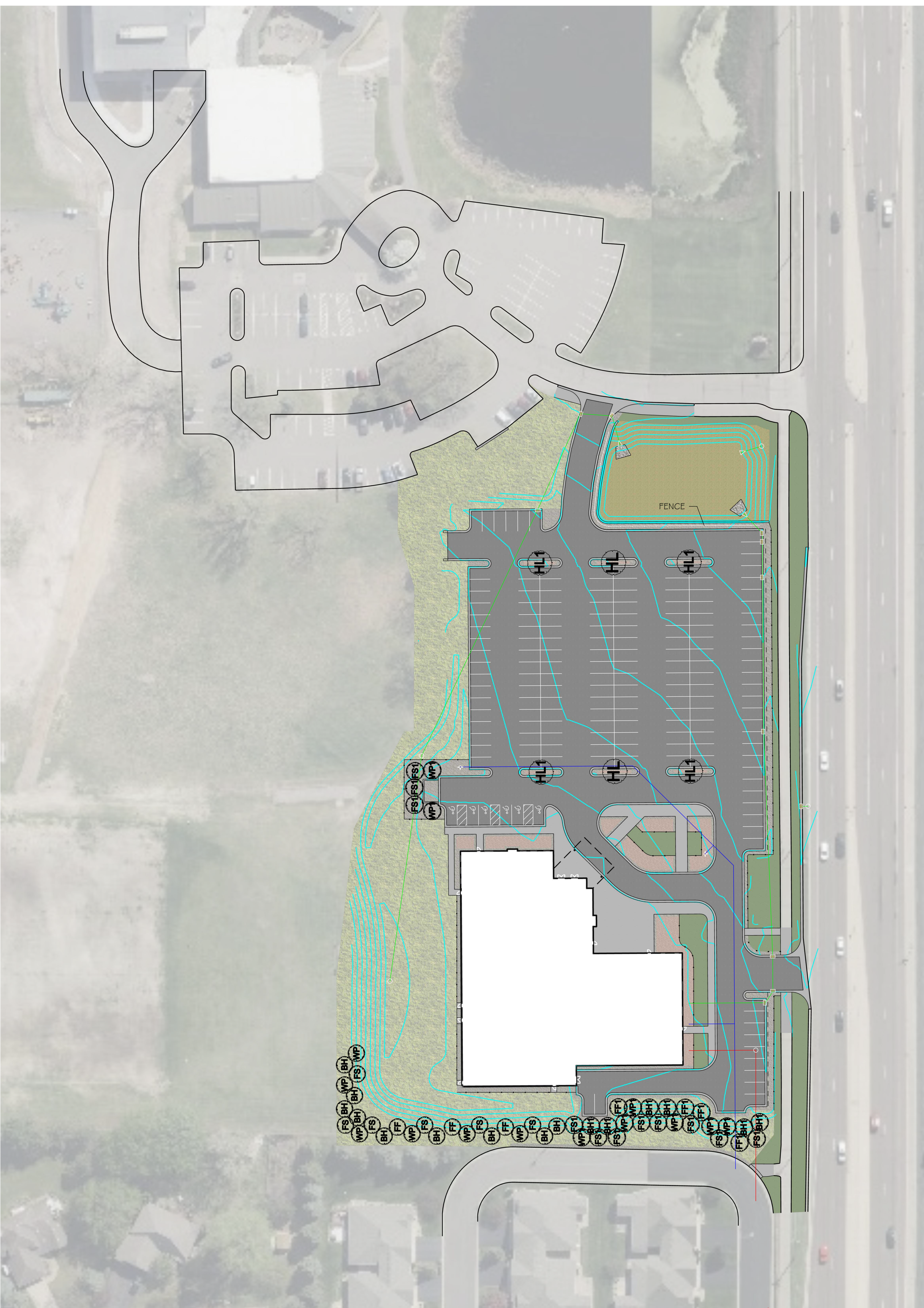
MEADOW CREEK CHURCH

RESTORATION AND PAVING PLAN  
CITY OF ANDOVER, MINNESOTA

SHEET  
C21  
OF  
C21  
SHEETS







LEGEND

- Sod (Estimated)  
Approx. 17,500 sf
- MNdot 25-131, Seeded (Estimated)  
Approx. 57,000 sf
- MNdot 33-261, Seeded (Estimated)  
Approx. 11,400 sf
- Double Shredded Bark Mulch (3")  
Approx. 4,100 sf
- 2-4" River Rock Mulch over Landscape Fabric  
Approx. 9,000 sf
- EV- Vinyl Edging  
Approx. 1,220 lf

PLANTING REQUIREMENTS

TREES- 30 total  
Site Perimeter  
One Tree per 75 lf (1965/75)= 26 Trees  
Parking Lot Island  
One Tree per 270 sf (1088/270)= 4 trees  
SHRUBS- 153 total  
Site Perimeter  
One Shrub per 30 lf (1965/30)= 65 shrubs  
Parking Lot Island  
One Shrub per 30 sf (1088/30)= 36 shrubs  
Building Perimeter  
One Shrub per 15 lf (780/15)= 52 shrubs

PLANTINGS PROPOSED

TREES  
Total trees proposed- 30  
SHRUBS  
Total shrubs proposed- 186

GENERAL LANDSCAPE NOTES

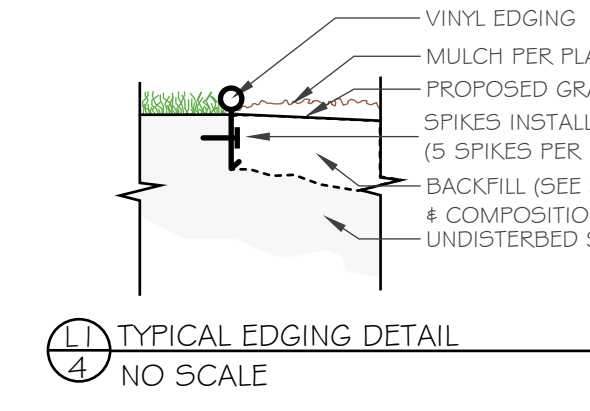
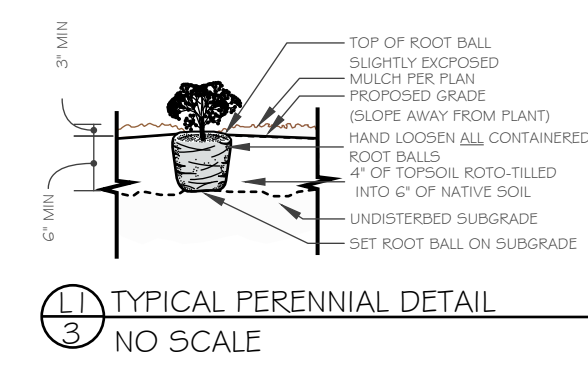
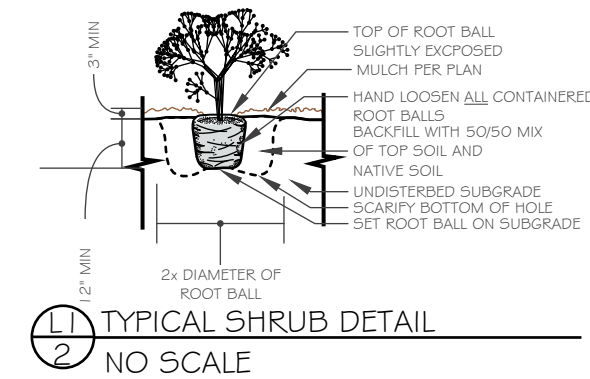
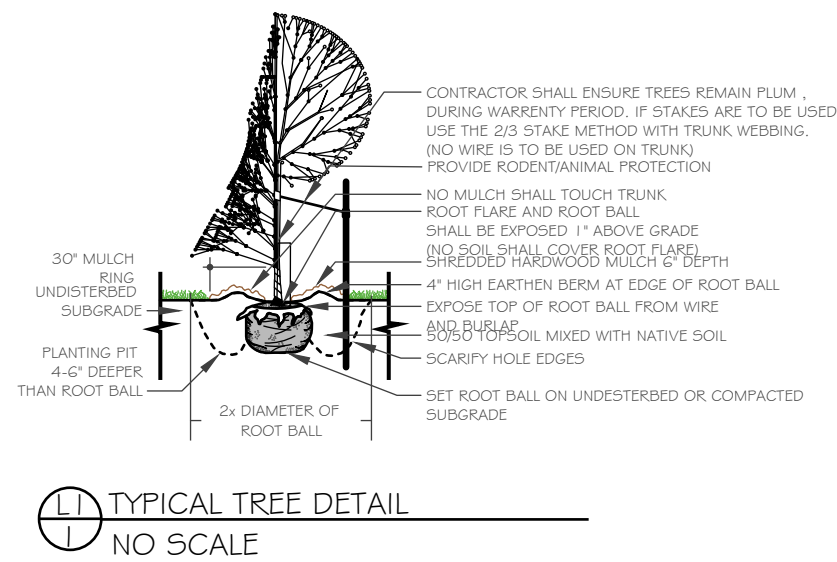
- THE CONTRACTOR SHALL INSPECT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS RELATING TO THE NATURE AND SCOPE OF THE WORK.
- THE CONTRACTOR SHALL VERIFY PLAN LAYOUT AND BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT DISCREPANCIES WHICH MAY COMPROMISE THE DESIGN OR INTENT OF THE LAYOUT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS GOVERNING THE WORK.
- THE CONTRACTOR SHALL PROTECT EXISTING ROADS, CURBS/GUTTERS, TRAILS, TREES, LAWNS AND SITE ELEMENTS DURING CONSTRUCTION.DAMAGE TO SAME SHALL BE REPAIRED AND/OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- VERIFY ALL UTILITIES, INCLUDING IRRIGATION LINES, WITH THE OWNER FOR PROPRIETARY UTILITIES AND GOPHER STATE ONE CALL 48 HOURS BEFORE DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
- THE LANDSCAPE CONTRACTOR SHALL COORDINATE THE PHASES OF CONSTRUCTION AND PLANTING INSTALLATION WITH OTHER CONTRACTORS WORKING ON SITE.
- THE CONTRACTOR SHALL REVIEW THE SITE FOR DEFICIENCIES IN SITE CONDITIONS WHICH MIGHT NEGATIVELY AFFECT PLANT ESTABLISHMENT, SURVIVAL OR WARRANTY. UNDESIRABLE SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK.
- THE PLAN TAKES PRECEDENCE OVER THE LANDSCAPE LEGEND IF DISCREPANCIES EXIST. QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.
- THE SPECIFICATIONS TAKE PRECEDENCE OVER THE PLANTING NOTES AND GENERAL NOTES.
- EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED TO THE DRIP LINE FROM ALL CONSTRUCTION TRAFFIC, STORAGE OF MATERIALS ETC. WITH 4" HT ORANGE PLASTIC SAFETY FENCING ADEQUATELY SUPPORTED BY STEEL FENCE POSTS 6' O.C. MAXIMUM SPACING LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED.
- CONTRACTOR SHALL REQUEST IN WRITING, A FINAL ACCEPTANCE INSPECTION.
- ALL LANDSCAPED AREAS SHALL BE IRRIGATED

PLANTING NOTES

- TREES AND SHRUBS SHALL BE FRESHLY DUG AT TIME OF DELIVERY UNLESS CONTAINER GROWN. IF CONTAINER GROWN, PLANTS SHALL BE WATERED EVERYDAY AND KEPT IN A PARTIALLY SHADED AREA UNTIL PLANTED.
- TREES TO BE PLANTED EXCEPT MULTI-STEM TREES SHALL HAVE A SINGLE STRAIGHT LEADER AND TAPERED TRUNK. ALL TREES SHALL BE FREE OF GIRDING ROOTS THAT HAVE ENCIRCLED THE TREE, TREES MUST BE IN GOOD HEALTH AND FREE OF DISEASE.
- ALL TREES SHALL HAVE A 2-4" HARDWOOD BARK MULCH 6" DIAMETER RING AROUND THE BASE OF THE TREE. KEEP MULCH OFF TREE TRUNK.
- THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED TO BE UNSATISFACTORY BEFORE, DURING OR AFTER INSTALLATION
- PLANTING HOLES SHALL BE FREE OF WEEDS, ROCKS, SOD, CLAY CLUMPS, GLASS V AND OTHER CONSTRUCTION MATERIALS.
- TOPSOIL FOR BACKFILLING PLANTING HOLES SHALL BE A MIXTURE OF NATIVE AND TOPSOIL AT A RATIO OF 1:1.
- CONTRACTOR SHALL EXCAVATE 8" OF SOIL IN ALL LANDSCAPE BEDS, REPLACE WITH 8" OF UNSCREENED TOPSOIL, ENOUGH ESTABLISH A POSITIVE GRADE FROM STRUCTURES, FOUNDATIONS, PATIOS, ETC..
- PLANTING BEDS PROPOSED WITH ROCK MULCH SHALL BE LAID OVER MIN. 6 MIL. BLACK POLY.
- PLANTING BEDS PROPOSED WITH BARK MULCH, A PRE EMERGENT HERBICIDE SHALL BE SPREAD AT PRODUCT RECOMMENDED RATIOS BEFORE BARK MULCH IS SPREAD. POLY AND FABRIC UNDERLAYMENTS ARE NOT TO BE USED UNDER BARK MULCH.
- ALL VINYL EDGING TO BE STAKED 7" ON CENTER, HORIZONTALLY.
- NO PLANTS SHALL BE INSTALLED UNTIL FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.

PLANT SCHEDULE

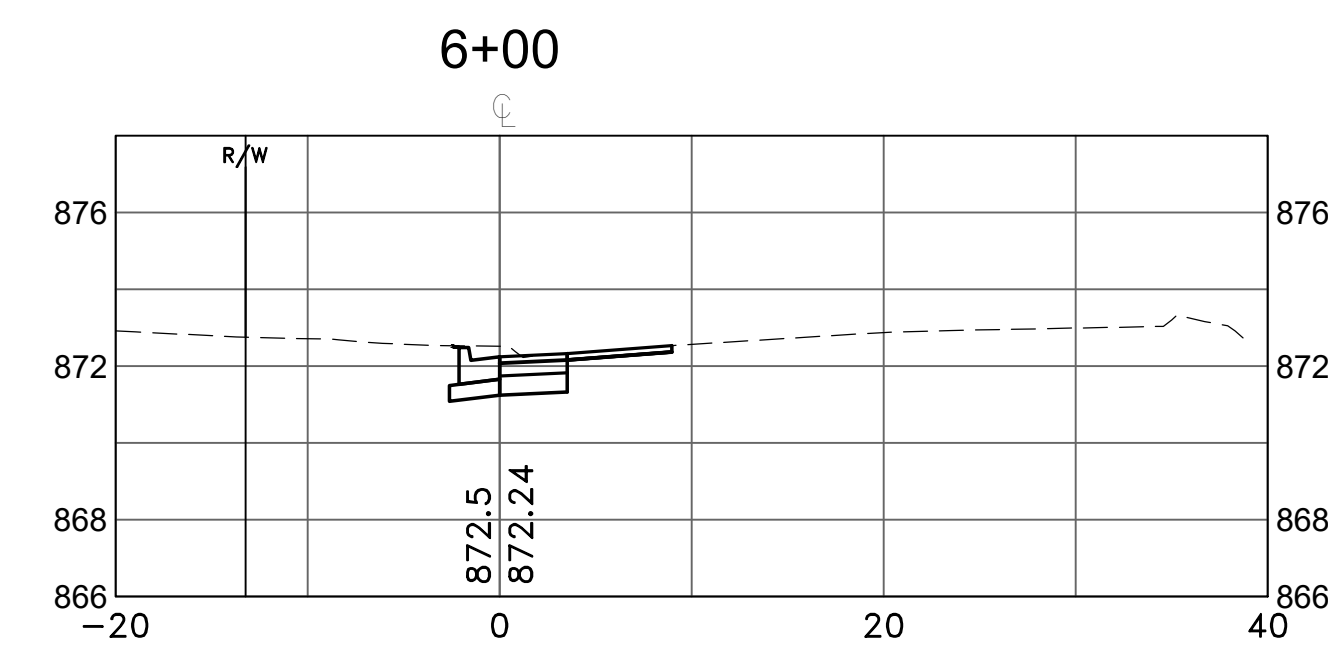
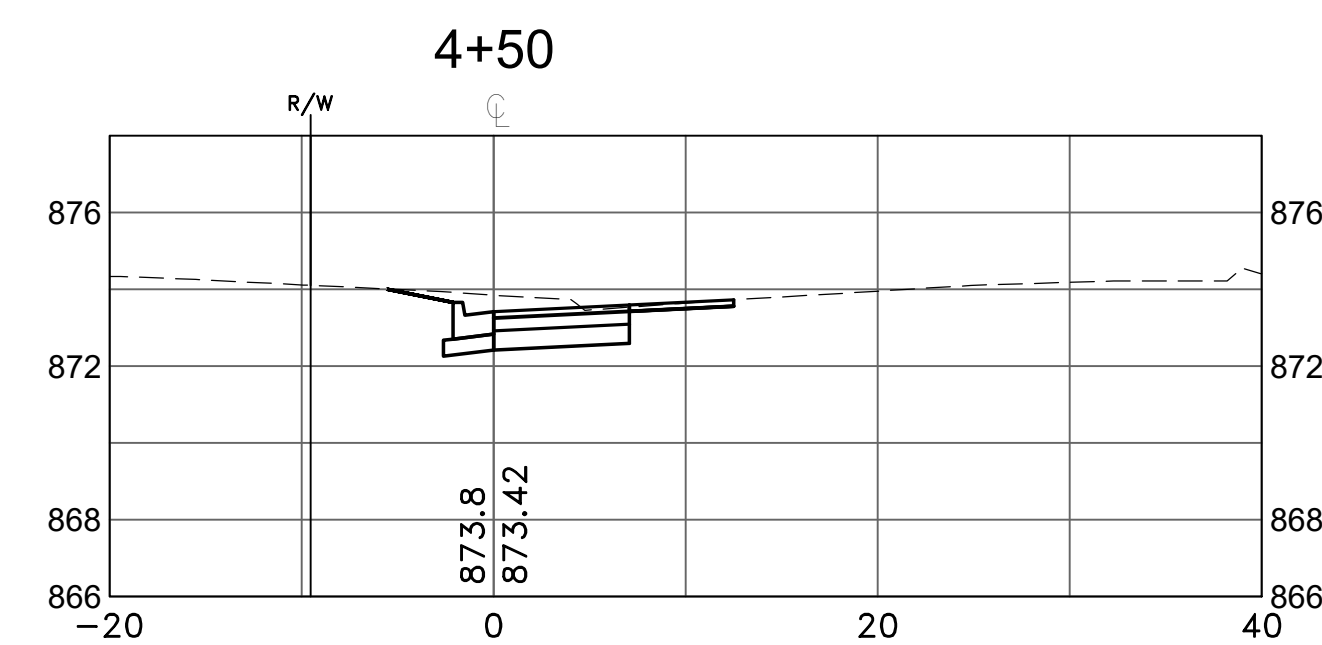
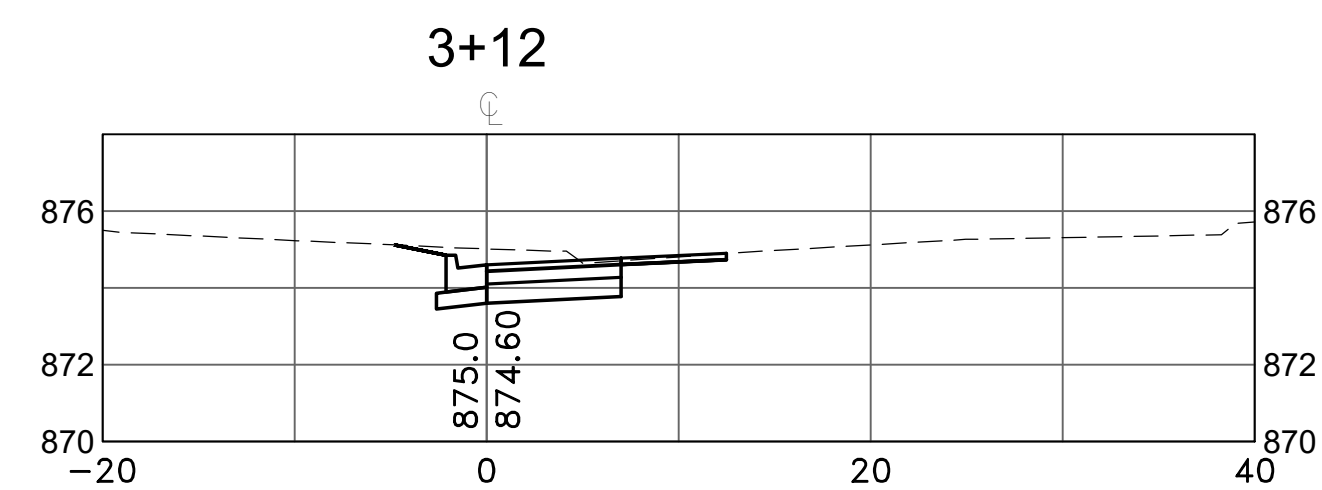
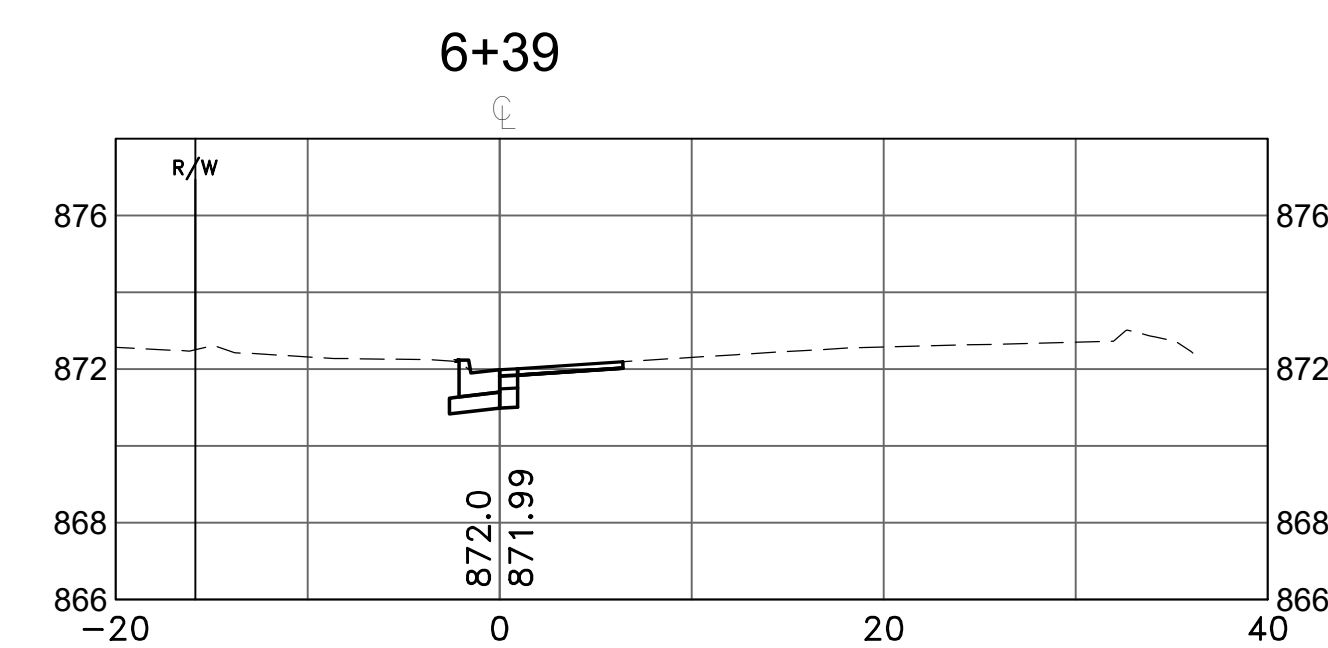
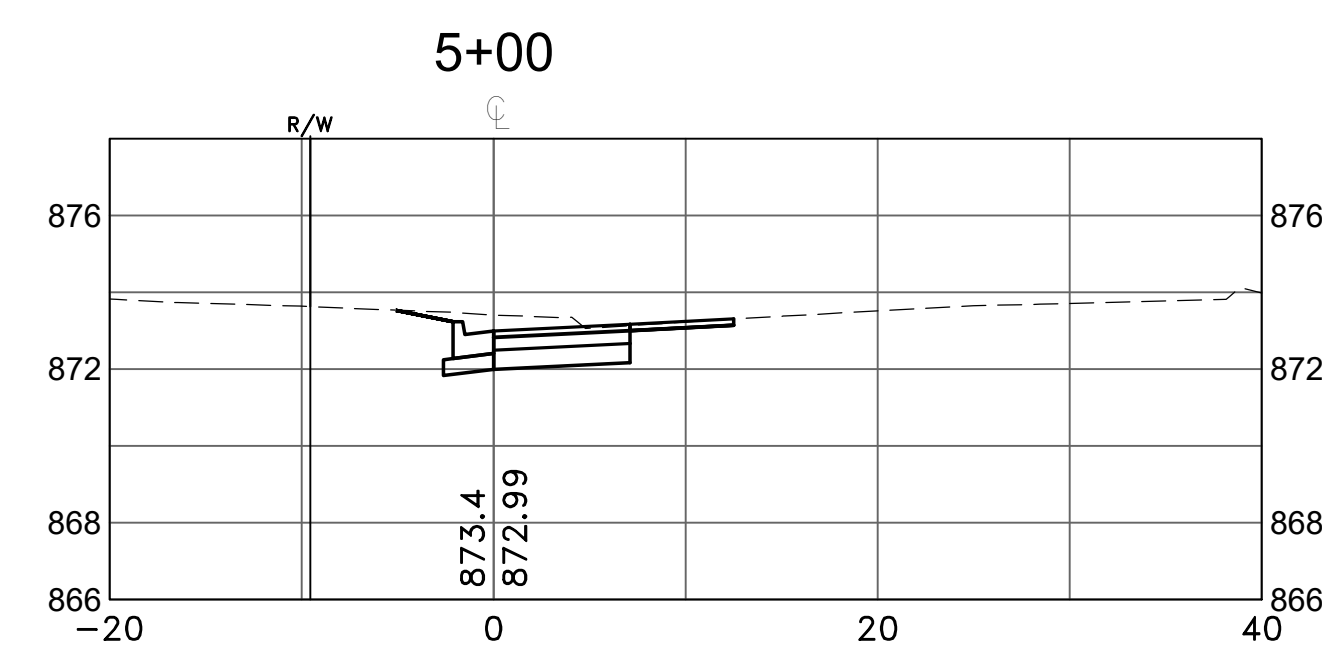
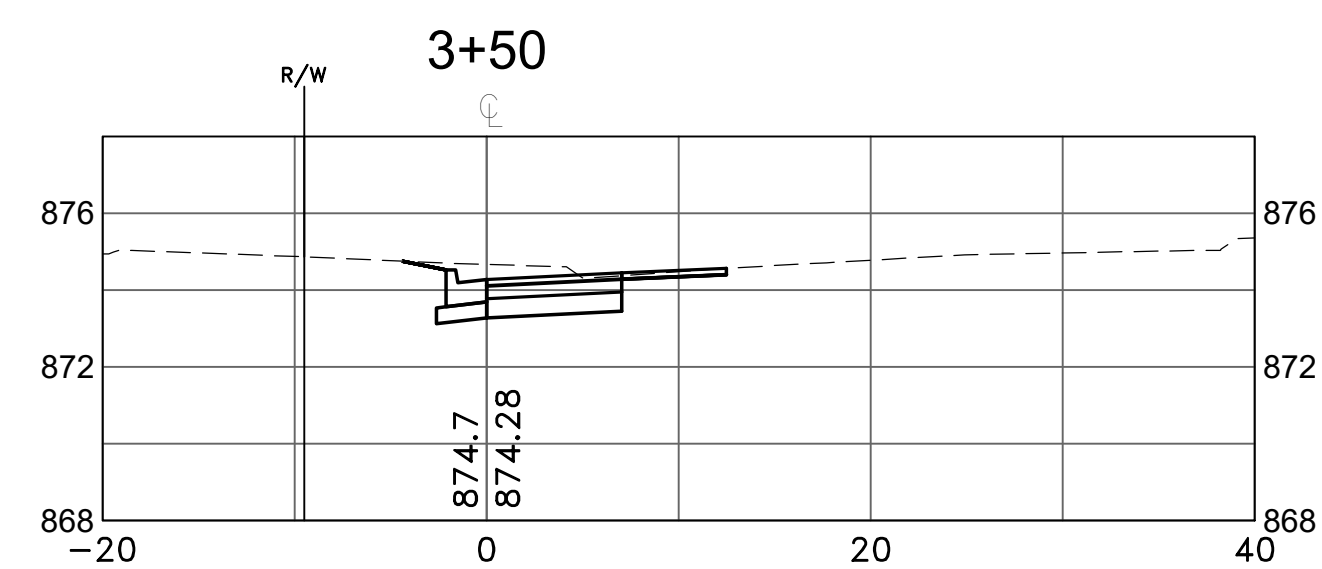
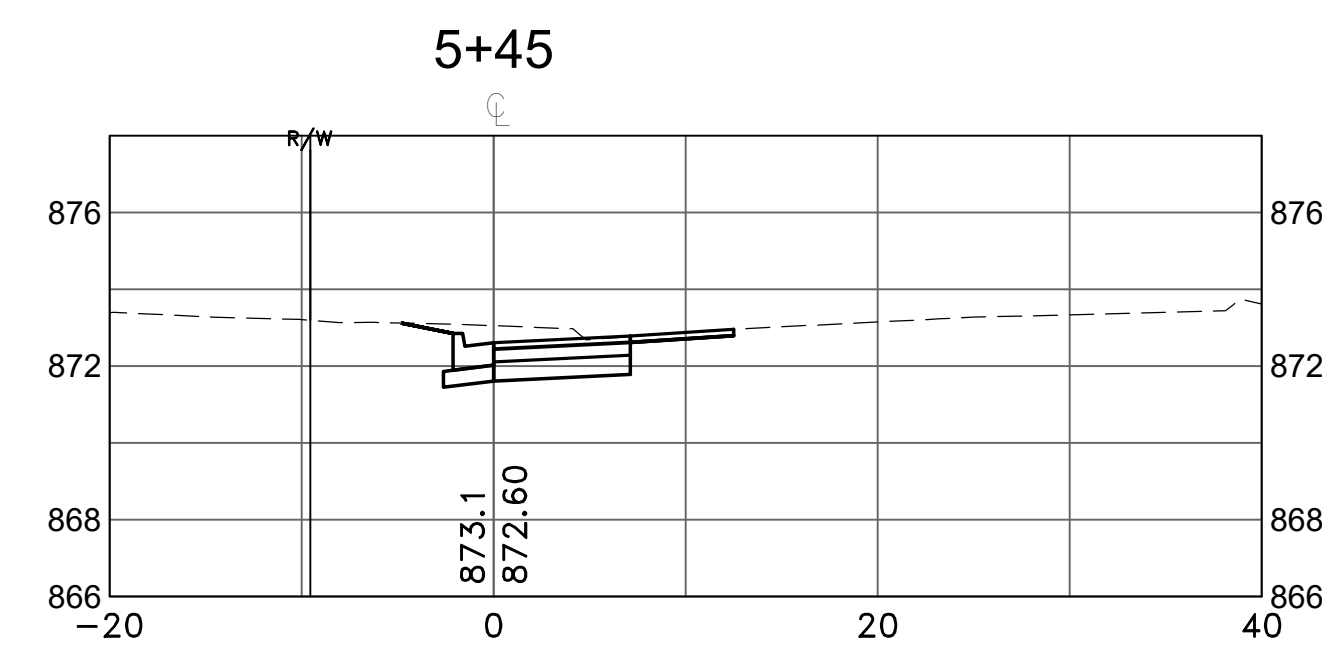
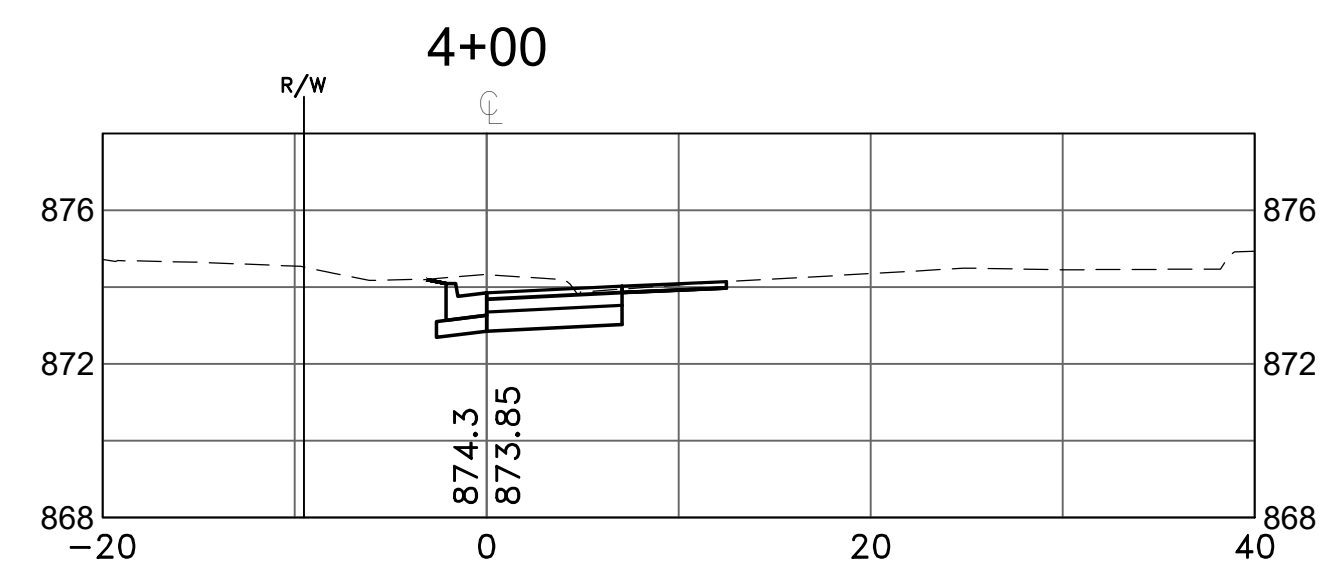
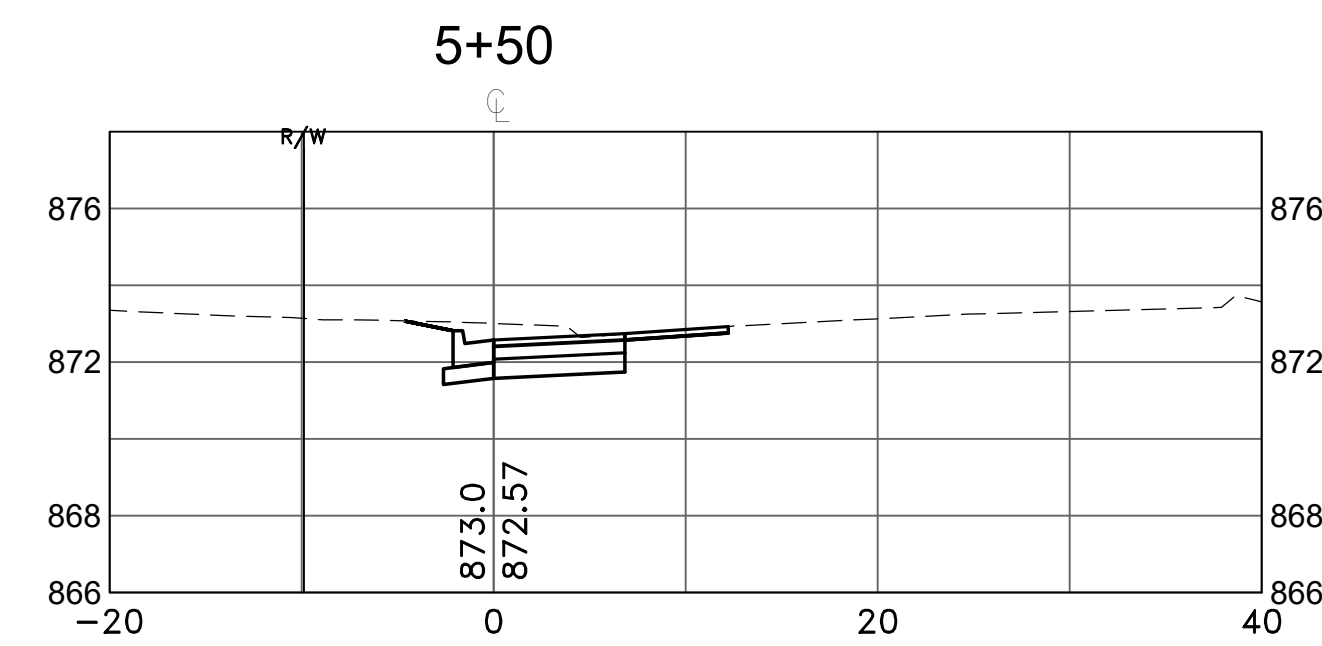
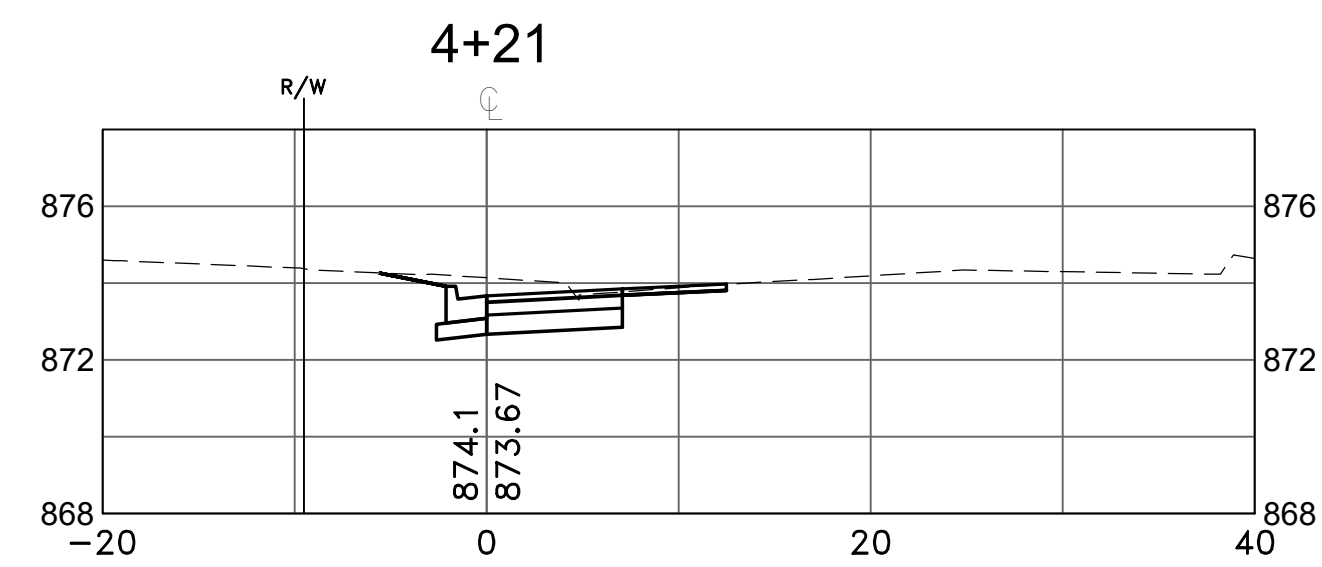
SITE/ BUILDING PERIMETER				
Trees				
Code	Common Name	Botanical Name	Cont.	Qty.
HL	Honey Locust	Gleditsia tnacanthos var. inermis 'Skycole'	2.5" BB	2
FF	Fraser Fir	Abies fraseri	6" BB	3
WP	White Pine	Pinus strobus	6" BB	6
BH	Black Hills Spruce	Picea glauca densata	6" BB	9
FS	Fat Albert Spruce	Picea pungens 'Fat Albert'	6" BB	6
Total				26
Shrubs				
Code	Common Name	Botanical Name	Cont.	Qty.
	Dwarf Bush Honeysuckle	Diervilla lonicera	5 Gal	29
	Annabelle Hydrangea	Hydrangea arborescens 'Annabelle'	5 Gal	4
	Little Lime Hydrangea	Hydrangea paniculata 'Jane'	5 Gal	3
	Torch Hydrangea	Hydrangea paniculata 'HFOPRO18'	3 Gal	14
	Dwarf Purple Lilac	Syringa x 'SMNURPI'	2 Gal	6
	Dwarf Pink Lilac	Syringa x 'SMNURPI'	3 Gal	3
	Grow Low Sumac	Rhus aromatic 'Gro-Low'	5 Gal	6
	Red Winterberry	Ilex verticillata 'Red Spnte'	2 Gal	6
	Dwarf Jap Juniper	Juniperus procumbens 'Nana'	5 Gal	30
	Maney Juniper	Juniperus chinensis 'Maney'	5 Gal	30
	Calgary Carpet Juniper	Juniperous sabrina 'Mona'	5 Gal	2
	Mugo Slowmound Pine	Pinus mugo 'Slowmound'	5 Gal	8
	Upright Mugo Pine	Pinus mugo 'Tanneribaum'	10 Gal	7
	Upright Spruce	Picea abies 'Acrocona'	10 Gal	2
Total				150
PARKING LOT ISLAND				
Trees				
Code	Common Name	Botanical Name	Cont.	Qty.
HLI	Honey Locust	Gleditsia tnacanthos var. inermis 'Skycole'	2.5" BB	4
Total				4
Shrubs				
Code	Common Name	Botanical Name	Cont.	Qty.
	Cottoneaster	Cotoneaster apiculatus	2 Gal	12
	Torch Hydrangea	Hydrangea paniculata 'HFOPRO18'	3 Gal	12
	Winterberry	Ilex verticillata 'Jim Dandy'	2 Gal	12
Total				36
PARKING LOT/ TRASH SCREEN				
Trees				
Code	Common Name	Botanical Name	Cont.	Qty.
FF I	Fraser Fir	Abies fraseri	6" BB	4
WP I	White Pine	Pinus strobus	6" BB	8
BH I	Black Hills Spruce	Picea glauca densata	6" BB	6
FS I	Fat Albert Spruce	Picea pungens 'Fat Albert'	6" BB	11
Shrubs				
Code	Common Name	Botanical Name	Cont.	Qty.
	Alpine Currant	Ribes alpinum	5 Gal	74
	Cottoneaster	Cotoneaster apiculatus	2 Gal	5
	Torch Hydrangea	Hydrangea paniculata 'HFOPRO18'	3 Gal	7
	Winterberry	Ilex verticillata 'Jim Dandy'	2 Gal	7
BEAUTIFICATION				
Perennials				
Code	Common Name	Botanical Name	Cont.	Qty.
	Moonshine Yarrow	Achillea x 'Moonshine'	1 Gal	35
	Ornamental Allium	Allium 'Millenium'	1 Gal	41
	Fanal Astilbe	A. japonica 'Fanal'	1 Gal	18
	Visions Astilbe	A. japonica 'Visions'	1 Gal	18
	Purple Astilbe	A. chinensis 'Purpurkerze'	1 Gal	6
	Kobold Liatris	L. spicata 'Kobold original'	1 Gal	30
	Catmint	Nepeta faassenii 'Walker's Low'	1 Gal	52
	Black Eyed Susan	Rudbeckia 'Goldsturm'	1 Gal	57
	Veronica	Veronica spicata 'Royal Candles'	1 Gal	23
	Karl Foerster Grass	Calamagrostis x acutiflora 'Karl Foerster'	1 Gal	24
	Little Bluestem	Schizachyrium scoparium 'Standing Ovation'	1 Gal	6











DATE	REVISION			
7/18/25	PLAN	REVISIONS	PER CITY	REVIEW
8/20/25	PLAN	REVISIONS	PER COUNTY	REVIEW

DESIGNED BY:	TAE
DRAWN BY:	TAE
CHECKED BY:	CJJ



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MEADOW CREEK CHURCH

## CROSS SECTIONS

CSAH 116  
CITY OF ANDOVER, MINNESOTA

SHEET  
 X1  
 OF  
 X1  
 SHEETS