

# CITY OF RAMSEY

## WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS

### CITY IMPROVEMENT PROJECT NO. 22-06

## GOVERNING SPECIFICATIONS

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

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

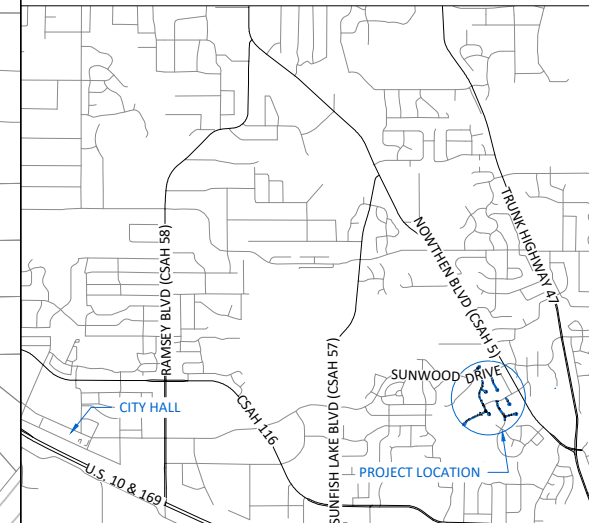
ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

### SHEET INDEX

THIS PLAN CONTAINS 29 SHEETS

SHEET No.	DESCRIPTION
01	TITLE SHEET
02	STATEMENT OF ESTIMATED QUANTITIES
03 - 04	CITY DETAILS
05 - 10	MNDOT PEDESTRIAN RAMP DETAILS
11 - 12	SWPPP
13	EROSION CONTROL
14 - 21	EXISTING CONDITIONS & REMOVALS
22 - 29	STREET IMPROVEMENTS

### LOCATION MAP



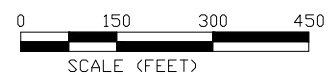
### LEGEND

<ul style="list-style-type: none"> <li> SANITARY MANHOLE</li> <li> STORM SEWER MANHOLE</li> <li> CATCH BASIN MANHOLE</li> <li> CATCH BASIN</li> <li> CATCH BASIN - GROUT</li> <li> CATCH BASIN - RESET</li> <li> FLARED END SECTION</li> <li> CULVERT END SECTION</li> <li> HYDRANT</li> <li> VALVE</li> <li> TREE - CONIFEROUS</li> <li> TREE - DECIDUOUS</li> <li> SHRUB</li> <li> LIGHT POLE</li> <li> SIGN</li> <li> MAILBOX</li> <li> PEDESTAL - TELECOM</li> <li> PEDESTAL - ELECTRIC</li> <li> HAND HOLE</li> <li> DRIVE - BITUMINOUS</li> <li> DRIVE - CONCRETE</li> <li> DRIVE - GRAVEL</li> <li> CONCRETE WALK</li> <li> BITUMINOUS TRAIL</li> <li> REMOVE BIT PAVE</li> <li> REMOVE CONCRETE PAVE</li> <li> REMOVE GRAVEL SURFACE</li> <li> MILL BIT PAVEMENT</li> <li> RECLAIM BIT PAVEMENT</li> </ul>	<ul style="list-style-type: none"> <li> Easement - Drainage &amp; Utility</li> <li> Easement - Roadway</li> <li> LOT LINE</li> <li> ELECTRIC LINE</li> <li> ELECTRIC LINE - BURIED</li> <li> ELECTRIC LINE - OVERHEAD</li> <li> GAS LINE</li> <li> TELECOMMUNICATION LINE</li> <li> TELECOMM - OVERHEAD</li> <li> FIBER OPTIC LINE</li> <li> TREE LINE</li> <li> LANDSCAPE</li> <li> RETAINING WALL</li> <li> FENCE</li> <li> SILT FENCE</li> <li> WATERMAIN</li> <li> SANITARY SEWER</li> <li> STORM SEWER</li> <li> DRAIN TILE</li> <li> LANDSCAPE - ROCK</li> <li> LANDSCAPE - MULCH</li> <li> LANDSCAPE - RIP RAP</li> <li> PR. DRIVE - BITUMINOUS</li> <li> PR. DRIVE - CONCRETE</li> <li> PR. DRIVE - GRAVEL</li> <li> PR. CONCRETE WALK</li> <li> PR. CONCRETE</li> <li> PR. SEEDING AREA</li> </ul>
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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

JOE FERIANCEK, P.E.      57095      DATE 2/28/22  
 CIVIL ENGINEER II      LIC. NO.

DATE	REVISION



**CITY OF RAMSEY**  
 7550 SUNWOOD DRIVE  
 RAMSEY, MN 55303  
 (763) 427-1410 FAX (763) 433-9898

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

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



Call before you dig  
 811  
 651 454-0002 Metro  
 800 252-1166 Outstate  
[www.gopherstateonecall.org](http://www.gopherstateonecall.org)

Feb 28, 2022 - 9:25am  
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**IP 22-06 WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS**

**STATEMENT OF ESTIMATED QUANTITIES**

Item No.	MnDOT No.	Note	Item Description	Unit	Quantity
1	2021.501		Mobilization	LS	1
2	2104.503	1	Remove Concrete Curb and Gutter	LF	644
3	2104.503	1	Sawing Bituminous Pavement (Full Depth)	LF	402
4	2104.503	1	Sawing Concrete Pavement (Full Depth)	LF	168
5	2104.504	1	Remove Bituminous Pavement	SY	74
6	2104.504	1	Remove Concrete Valley Gutter	SY	73
7	2105.507		Common Excavation (EV)	CY	24
8	2105.507	11	Subgrade Excavation, Remove Unsuitable Material (EV)	CY	236
9	2105.607	10	Haul & Stockpile Reclaim Material (LV)	CY	2061
10	2106.507	2	Select Granular Borrow (CV)	CY	15
11	2112.519		Subgrade Preparation	RDST	46
12	2130.523		Water	MGAL	184
13	2211.507	2	Aggregate Base Class 5 Modified (CV) 5"	CY	2388
14	2215.504	10	Full Depth Reclamation (7.0")	SY	16957
15	2231.604	1	Bituminous Patch	SY	29
16	2232.504		Mill Bituminous Pavement (2.0")	SY	65
17	2357.506	4	Bituminous Material for Tack Coat	GAL	1194
18	2360.509	5	Type SP 12.5 Non Wearing Course Mixture (3,C) 2.0"	TON	1927
19	2360.509	5	Type SP 9.5 Wearing Course Mixture (3,C) 1.5"	TON	1446
20	2503.602		Grout Catch Basin	EA	10
21	2503.602		Reset Catch Basin	EA	2
22	2503.603		Interior Chimney Seal	EA	24
23	2504.602		Remove and Replace Valve Box Section	EA	5
24	2504.602		Adjust Valve Box	EA	11
25	2506.502		Adjust Frame and Ring Casting	EA	24
26	2521.504		6" Concrete Walk	SY	73
27	2531.503		Concrete Curb & Gutter Design B618	LF	246
28	2531.503		Concrete Curb & Gutter Design Surmountable	LF	398
29	2531.604		7" Concrete Valley Gutter	SY	63
30	2531.618		Truncated Domes	SF	102
31	2540.601		Landscape Restoration	LS	1
32	2563.601	9	Traffic Control	LS	1
33	2573.502		Storm Drain Inlet Protection	EA	15
34	2573.503		Silt Fence	LF	60
35	2574.507	3	Topsoil (LV)	CY	40
36	2574.508	6	Fertilizer Type 3	LBS	5
37	2575.504		Rolled Erosion Prevention Category 72	SY	30
38	2575.505		Seeding	ACRE	0.05
39	2575.508	8	Hydraulic Mulch Matrix	LBS	200
40	2575.508	7	Seed Mixture 25-151	LBS	10

PAY ITEM NOTES:

- REMOVAL LIMITS SHALL BE MARKED IN THE FIELD BY CITY STAFF.
- LV TO CV CONVERSION FACTOR = 1.25.
- LV TO CV CONCERSION FACTOR = 1.30.
- ESTIMATED QUANTITY BASED ON APPLICATION RATE OF 0.07 GAL/SY.
- ESTIMATED QUANTITY BASED ON APPLICATION RATE OF 113 LB/SY-IN.
- ESTIMATED QUANTITY BASED ON 100 LB/ACRE.
- ESTIMATED QUANTITY BASED ON 120 LB/ACRE.
- ESTIMATED QUANTITY BASED ON 4000 LB/ACRE.
- LUMP SUM QUANTITY SHALL INCLUDE ALL COST REQUIRED FOR MAINTAINING ALL FLAGGING OPERATIONS AS NECESSARY, MAINTAINING PEDESTRIAN ACCESS ROUTES, ANY SIGNAGE AND BARRICADES AS NECESSARY.
- EXCESS RECLAMATION MATERIAL SHALL BE HAULED FROM THE ONSITE STOCKPILE LOCATION TO THE CITY OF RAMSEY PUBLIC WORKS CAMPUS, 14100 JASPER STREET. THE EXPECTED RECLAMATION DEPTH IS 7 INCHES. THE TOP 3.5 INCHES ARE PROPOSED TO BE REMOVED.
- SUBGRADE EXCAVATION PAY ITEM INCLUDES REMOVING 0.5 INCHES OF MATERIAL BELOW THE RECLAMATION MATERIAL, NECESSARY FOR PROPOSED PAVEMENT SECTION. ON-SITE MOVING OF RECLAMATION MATERIAL IS INCIDENTAL.

GENERAL NOTES:

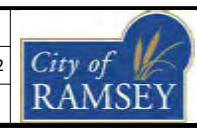
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. IT IS NOT GUARANTEED ANY OR ALL EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING IRRIGATION SYSTEMS WITHIN THE PROJECT CONSTRUCTION LIMITS BEFORE COMMENCING WORK. THE CONTRACTOR IS RESPONSIBLE FOR AVOIDING DAMAGE TO IRRIGATION SYSTEMS WHERE POSSIBLE.
- STREET INTERSECTION CURB & GUTTER RADII ASSUMED 20', UNLESS OTHERWISE NOTED.
- PERMANENT SIGN REMOVAL AND INSTALLATION IS TO BE PERFORMED BY CITY OF RAMSEY PUBLIC WORKS DEPARTMENT.

DATE	REVISION

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

*Joe Periancek*  
 JOE PERIANCEK  
 Date 2/28/22 Lic. No. 57095

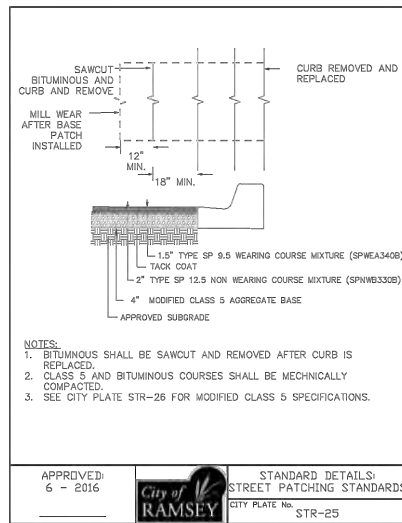
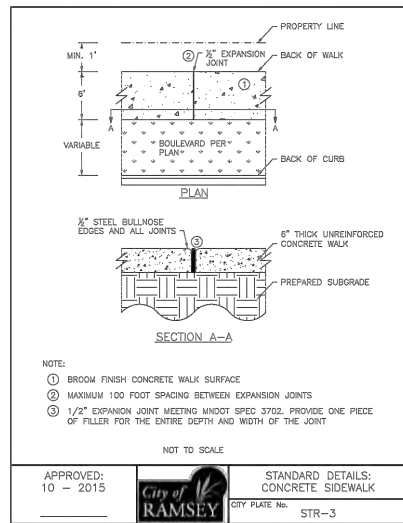
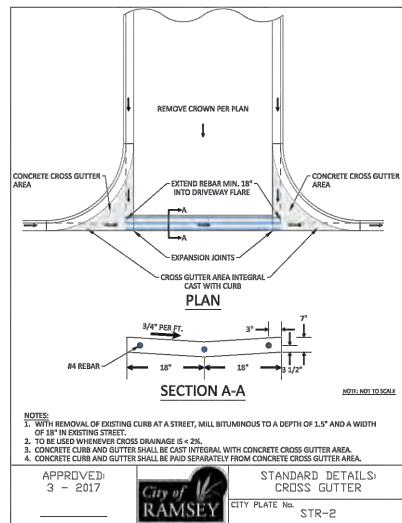
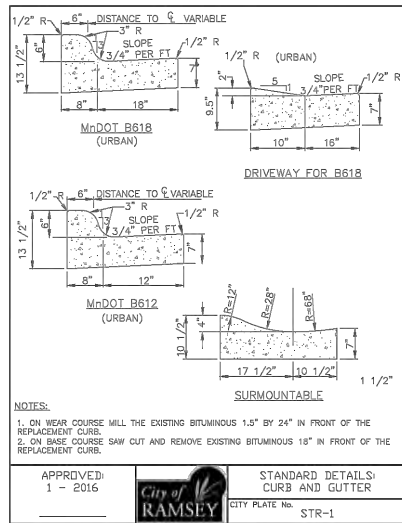
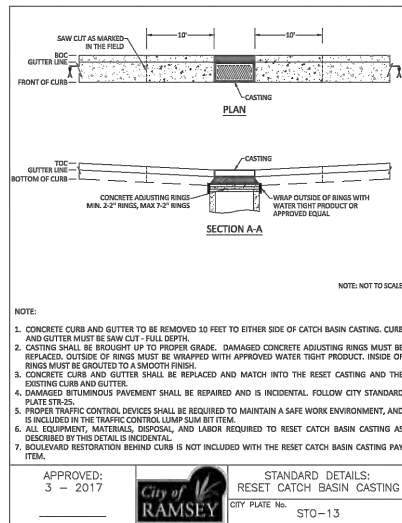
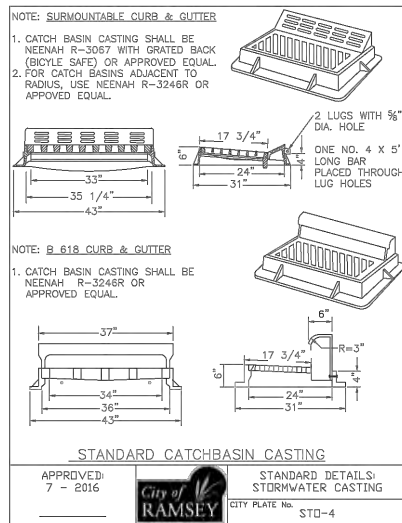
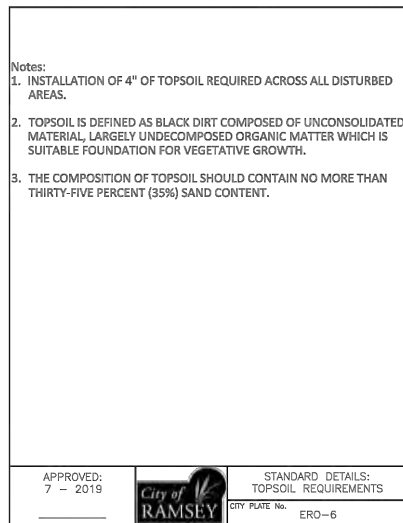
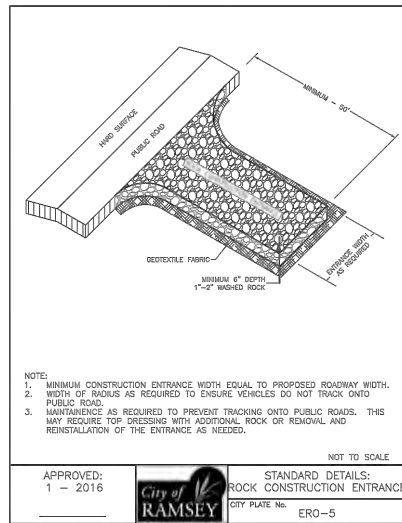
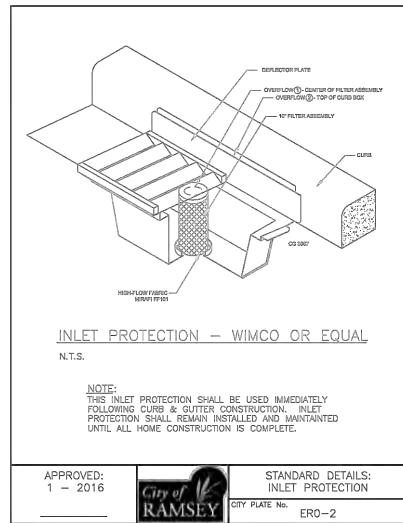
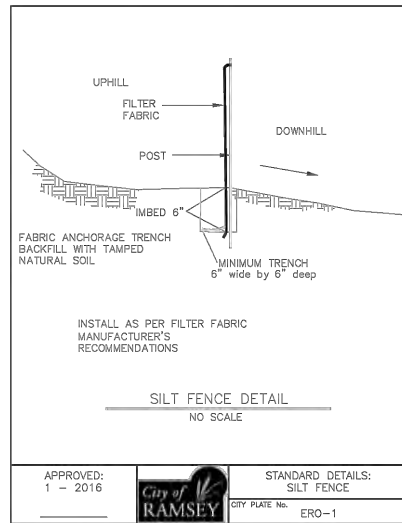
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DRAWN BY:	JJF	FILE:	22-06
CHECKED BY:	JJF		



CITY OF RAMSEY  
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STATEMENT OF ESTIMATED QUANTITIES

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 CITY PROJECT NO. 22-06  
 CITY OF RAMSEY, MINNESOTA



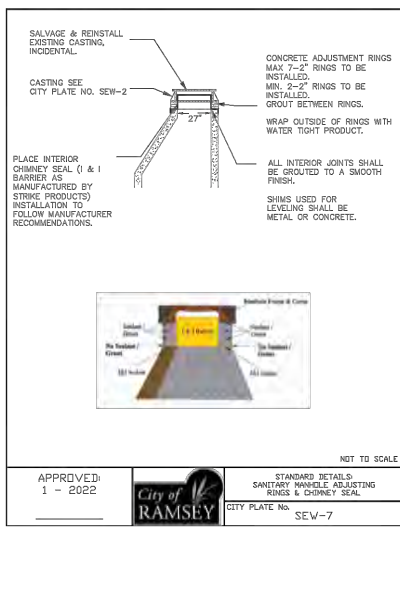
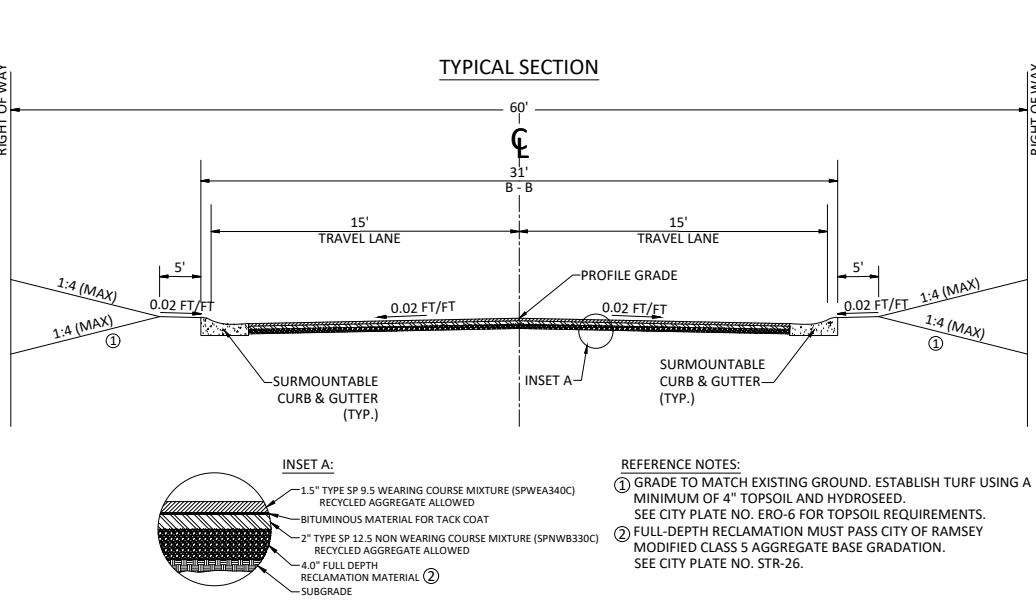
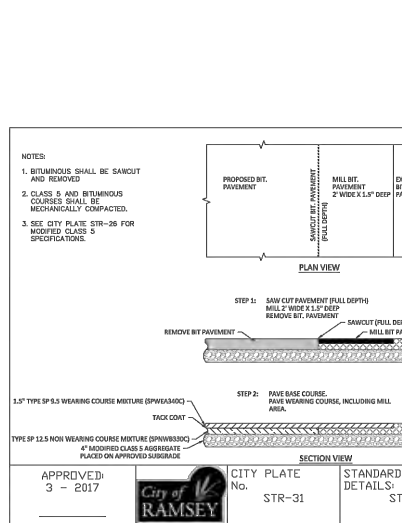
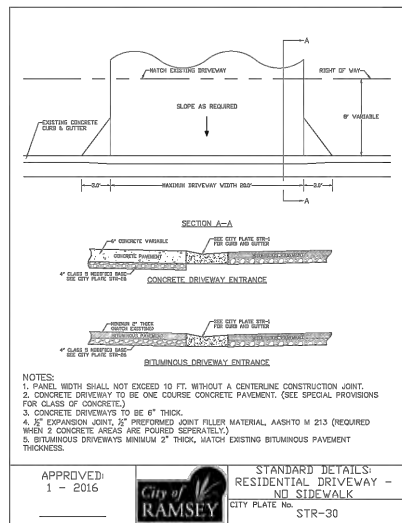
**TABLE A  
MODIFIED CLASS 5  
SPECIFICATIONS**

% PASSING

1"	100
3/4"	90 - 100
3/8"	50 - 80
No.4	35 - 70
No.10	20 - 60
No.40	10 - 35
No.200	5 - 10

NOTE:  
1. THE AGGREGATE BASE CONSTRUCTION WILL BE ACCEPTED FOR PAYMENT IN ACCORDANCE WITH THE PROVISIONS IN TABLE A.  
2. IF THE AGGREGATE BASE FAILS TO MEET THE REQUIREMENTS OF TABLE A THE MATERIAL CAN BE CORRECTED IN PLACE OR REMOVED AND REPLACED WITH MATERIAL THAT MEET THE REQUIREMENTS OF TABLE A.  
3. IN THE EVENT THAT RECYCLED MATERIAL IS USED IT MUST MEET MNDOT REQUIREMENTS FOR RECYCLED BASE.

APPROVED: 2 - 2003  
CITY OF RAMSEY  
STANDARD DETAILS: MODIFIED CLASS 5 SPECIFICATIONS  
CITY PLATE No. STR-26



DATE	REVISION

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

*Joe Feriancek*  
JOE FERIANCEK  
Date: 2/28/22 Lic. No. 57095

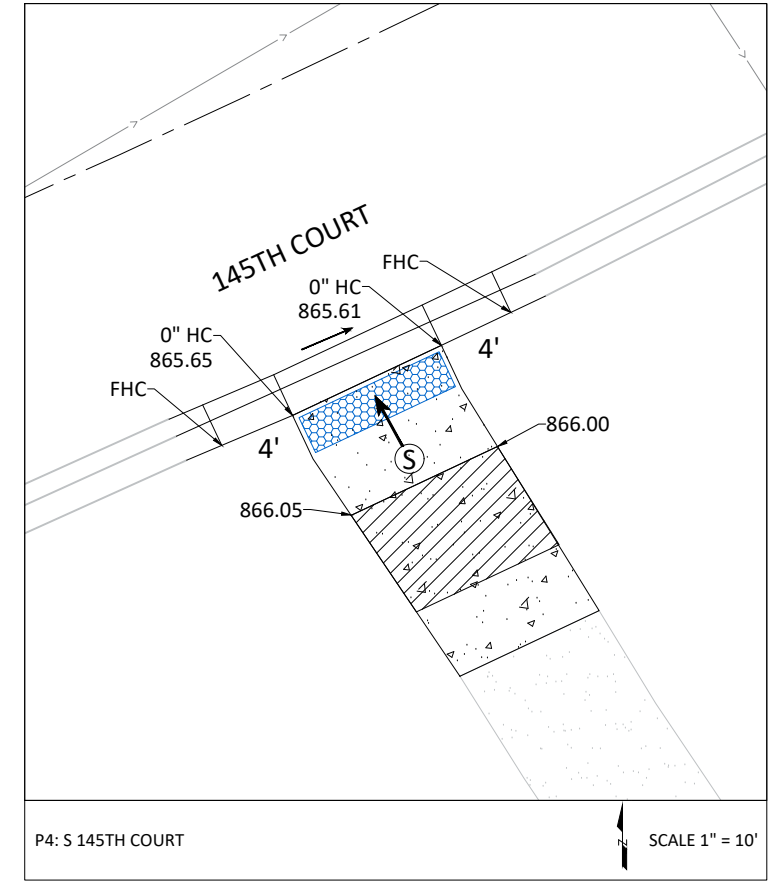
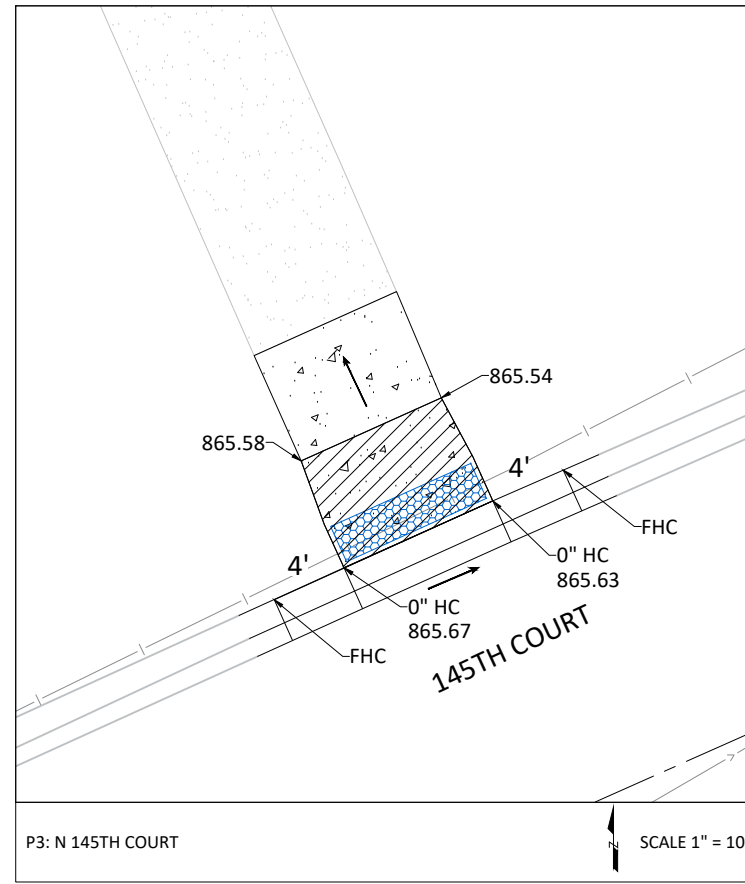
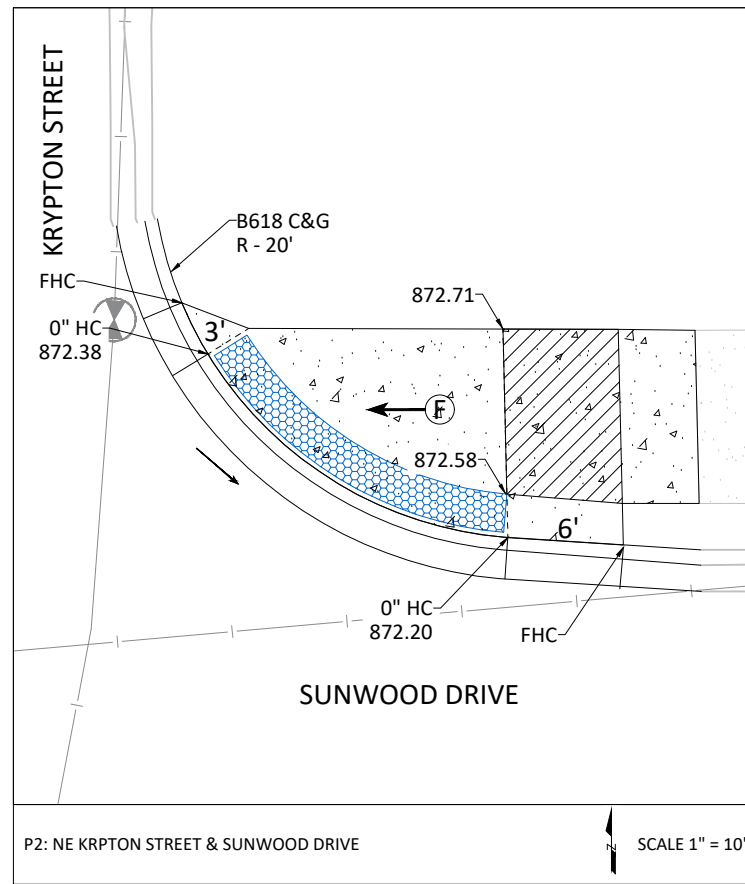
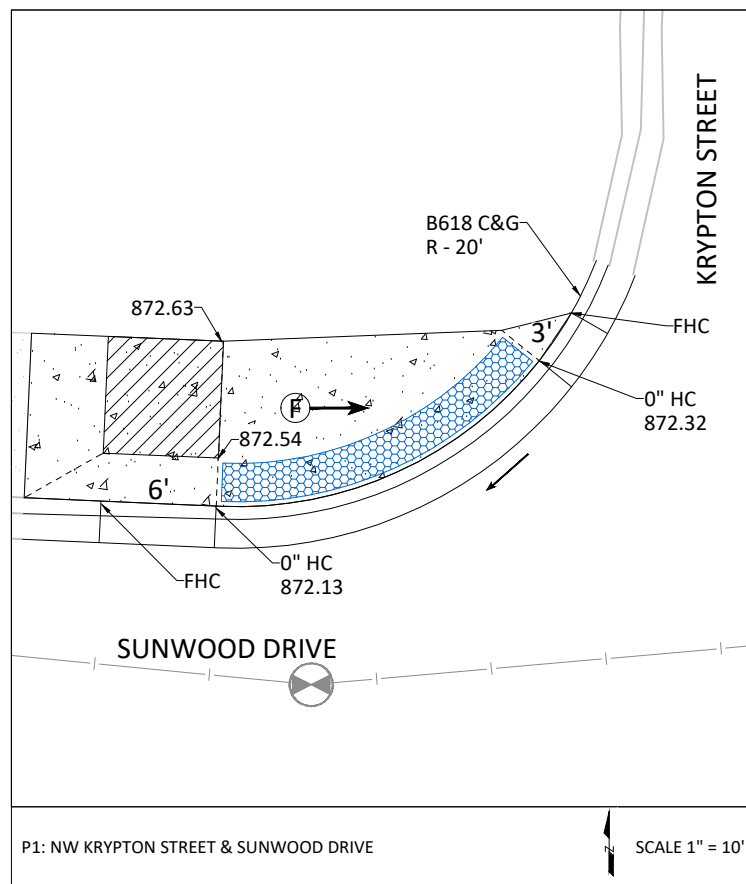
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



CITY DETAILS

WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS  
CITY PROJECT NO. 22-06  
CITY OF RAMSEY, MINNESOTA

SHEET 03 OF 29 SHEETS



**PED RAMP LEGEND**

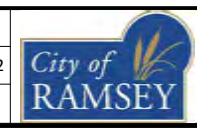
- 
 INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
- 
 INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
- 
 LANDING AREA - 4'X4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS.
- 
 DRAINAGE FLOW ARROW

DATE	REVISION

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*Joe Feriancek*  
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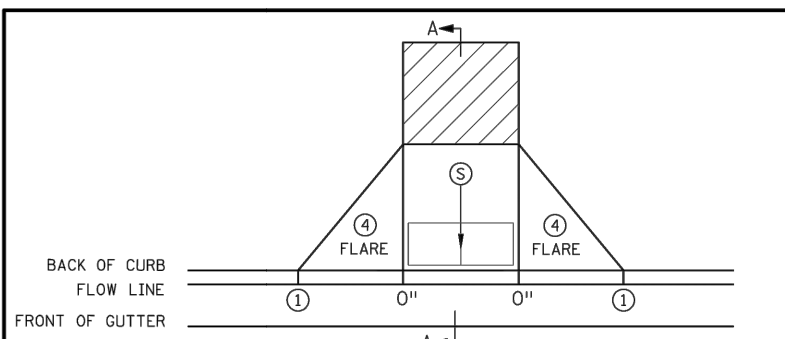


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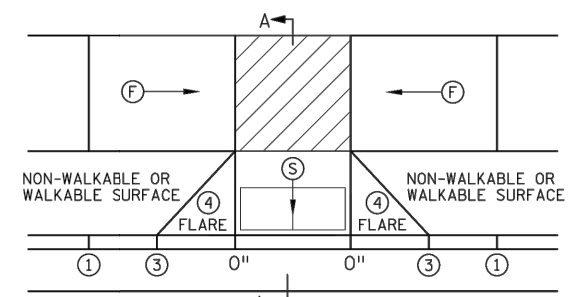
CITY DETAILS

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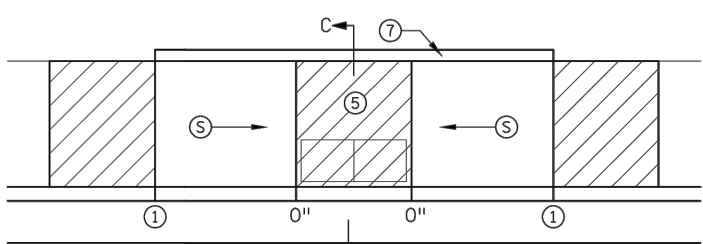
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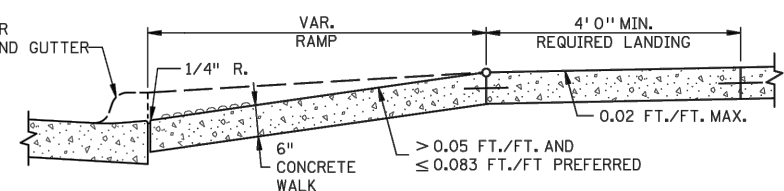
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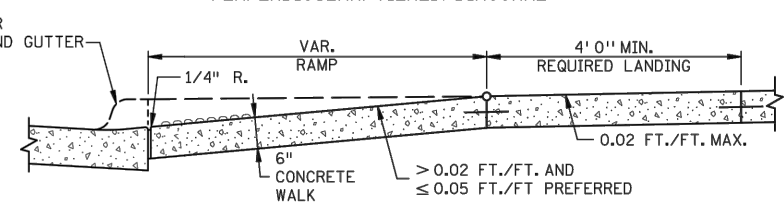
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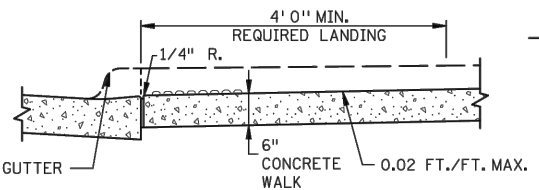
**PARALLEL**



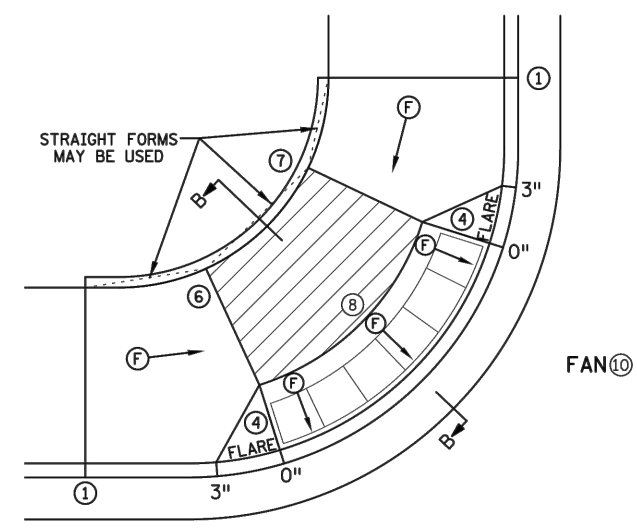
**SECTION A-A  
PERPENDICULAR/TIERED/DIAGONAL**



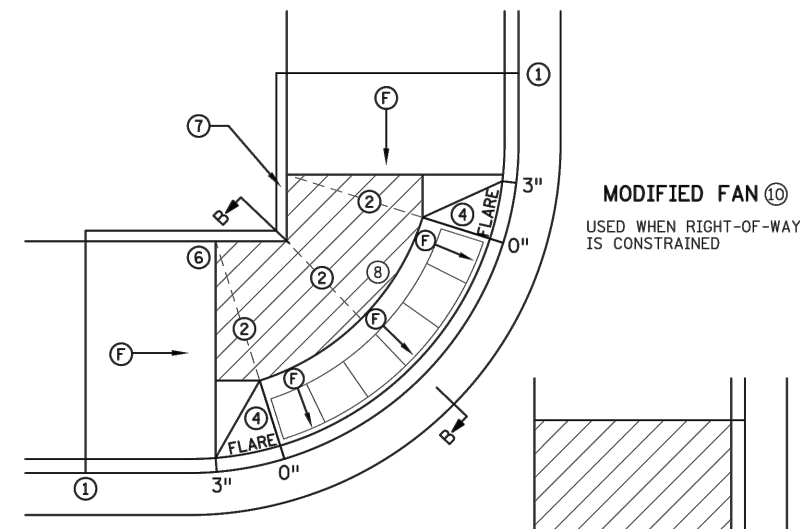
**SECTION B-B  
FAN**



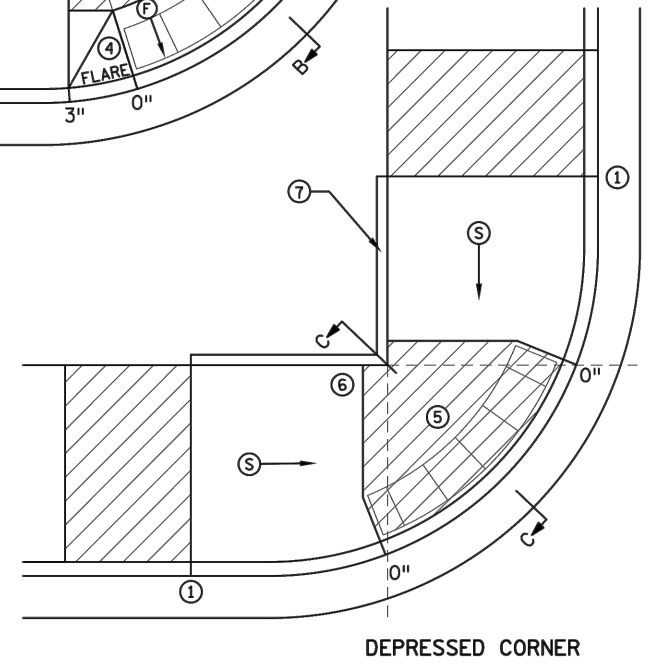
**SECTION C-C  
PARALLEL/DEPRESSED CORNER**



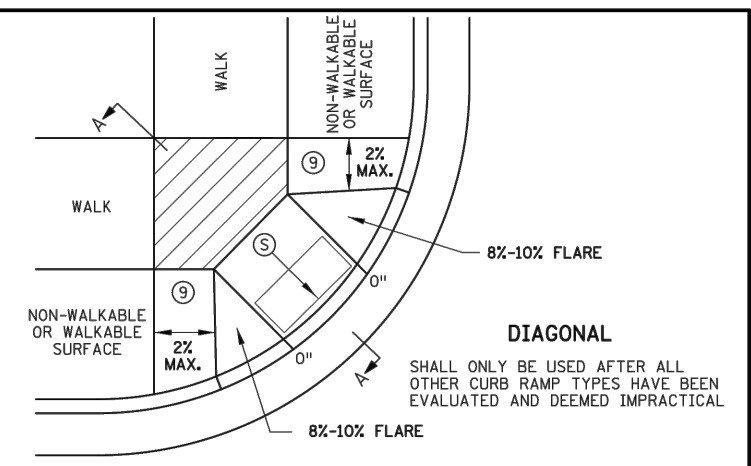
**FAN ⑩**



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



**DEPRESSED CORNER**



**DIAGONAL**

**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 INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY, FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISIONS - PROSECUTION OF WORK (ADA).
  - 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 ENTIRE WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK. DETECTABLE WARNING SHOULD BE 6" LESS THAN THE PAR/TRAIL WIDTH. ARC LENGTH OF 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, WHEN INITIAL LANDING IS AT FULL CURB HEIGHT.
  - 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 SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
  - ⑧ A 7" MIN TOP RADIUS GRADE BREAK 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.

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

REVISION:  
 APPROVED: JANUARY 23, 2017  
 OPERATIONS ENGINEER

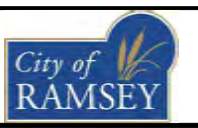
**MINNESOTA**  
 DEPARTMENT OF TRANSPORTATION  
 STANDARD PLAN 5-297.250 1 OF 6  
 APPROVED: 1-23-2017  
 REVISOR:  
 STATE PROJ. NO. (T.H.) SHEET NO. OF SHEETS

**PEDESTRIAN CURB RAMP DETAILS**

DATE	REVISION

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  
 JOE FERIANECK  
 Date 2/28/22 Lic. No. 57095

DESIGNED BY: JJF  
 DRAWN BY: JJF  
 CHECKED BY: JJF  
 DATE: 2/28/22  
 FILE: 22-06



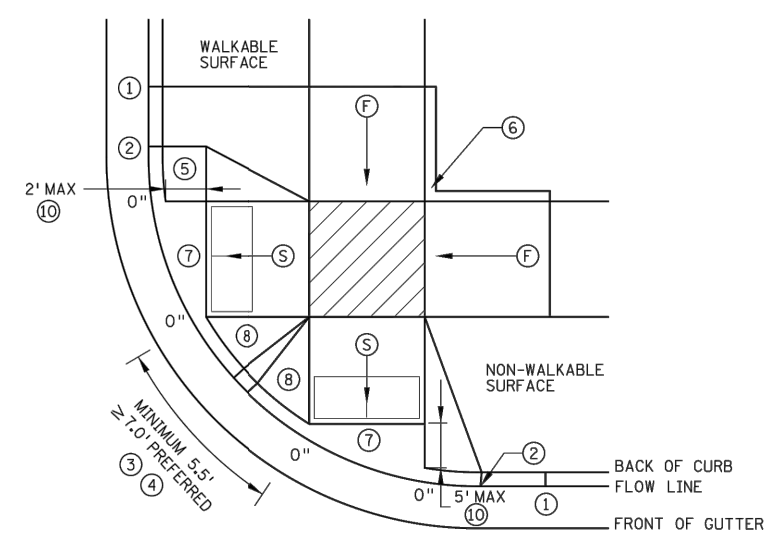
CITY OF RAMSEY  
 7550 SUNWOOD DRIVE  
 RAMSEY, MN 55303  
 (763) 427-1410 FAX (763) 433-9898

MNDOT PEDESTRIAN RAMP DETAILS

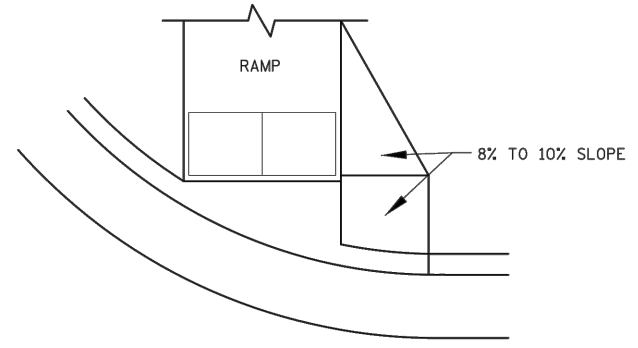
WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS  
 CITY PROJECT NO. 22-06  
 CITY OF RAMSEY, MINNESOTA

PLOTTED/REVISED: 4-APR-2018

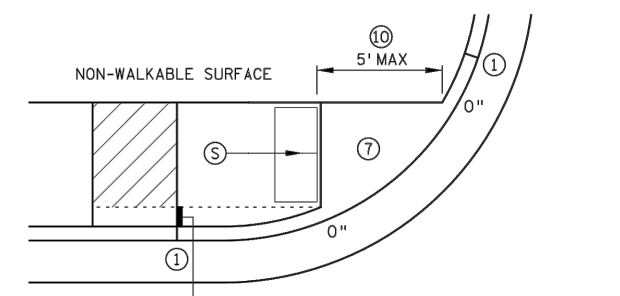
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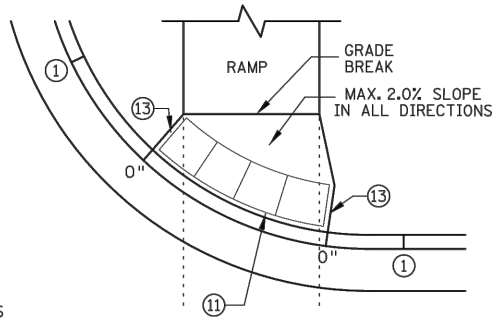
COMBINED DIRECTIONAL ⑨



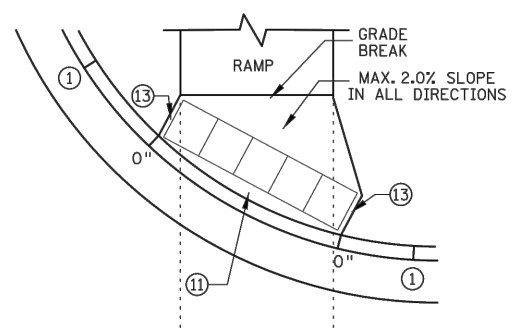
DIRECTIONAL RAMP WALKABLE FLARE



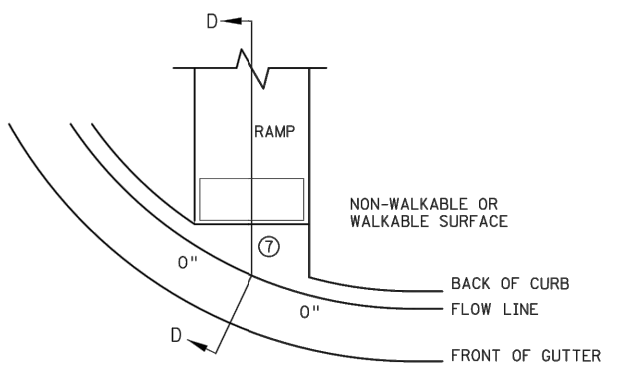
STANDARD ONE-WAY DIRECTIONAL ⑨



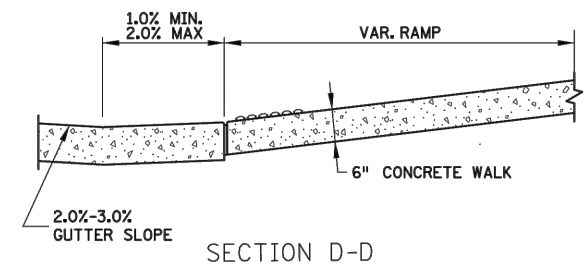
ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB



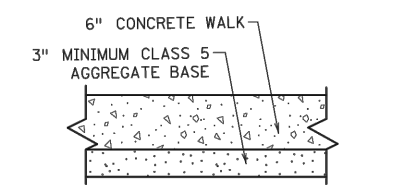
DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED ⑫



CURB FOR DIRECTIONAL RAMPS ⑭



SECTION D-D



TYPICAL SIDEWALK SECTION WITHIN INTERSECTION CORNER

- 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 WARNING SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER ENTIRE WIDTH OF SHARED-USE PATH AND THE ENTIRE PAR WIDTH OF THE WALK. DETECTABLE WARNING SHOULD BE 6" LESS THAN THE PAR/PATH WIDTH. ARC LENGTH OF 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.
- MATCH FULL CURB HEIGHT.
  - 3" HIGH CURB WHEN USING A 3' LONG RAMP  
4" HIGH CURB WHEN USING A 4' LONG RAMP.
  - 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)  
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).
  - 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.
  - WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHOULD BE USED. SEE THE DETAIL ON THIS SHEET.
  - 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.
  - 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% TO 10% WALKABLE FLARE.
  - PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.
  - 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.
  - 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.
  - 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.
  - THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
  - TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.

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

REVISION:
APPROVED: JANUARY 23, 2017
<i>[Signature]</i> OPERATIONS ENGINEER

	STANDARD PLAN 5-297.250	2 OF 6	PEDESTRIAN CURB RAMP DETAILS	
	 STATE DESIGN ENGINEER	APPROVED: 1-23-2017 REVISED:	STATE PROJ. NO.	(T.H. ) SHEET NO. OF SHEETS

DATE	REVISION

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

JOE FERIANECK  
 Date 2/28/22 Lic. No. 57095

DESIGNED BY: JJF	DATE: 2/28/22
DRAWN BY: JJF	FILE: 22-06
CHECKED BY: JJF	

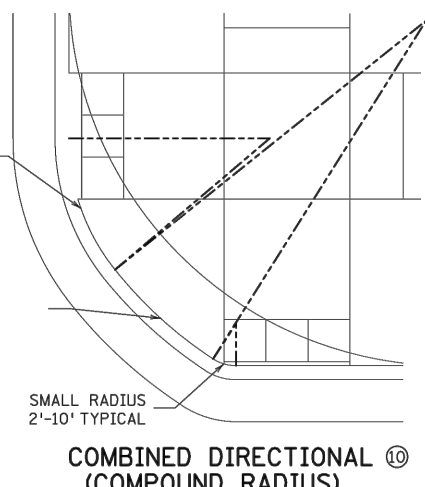
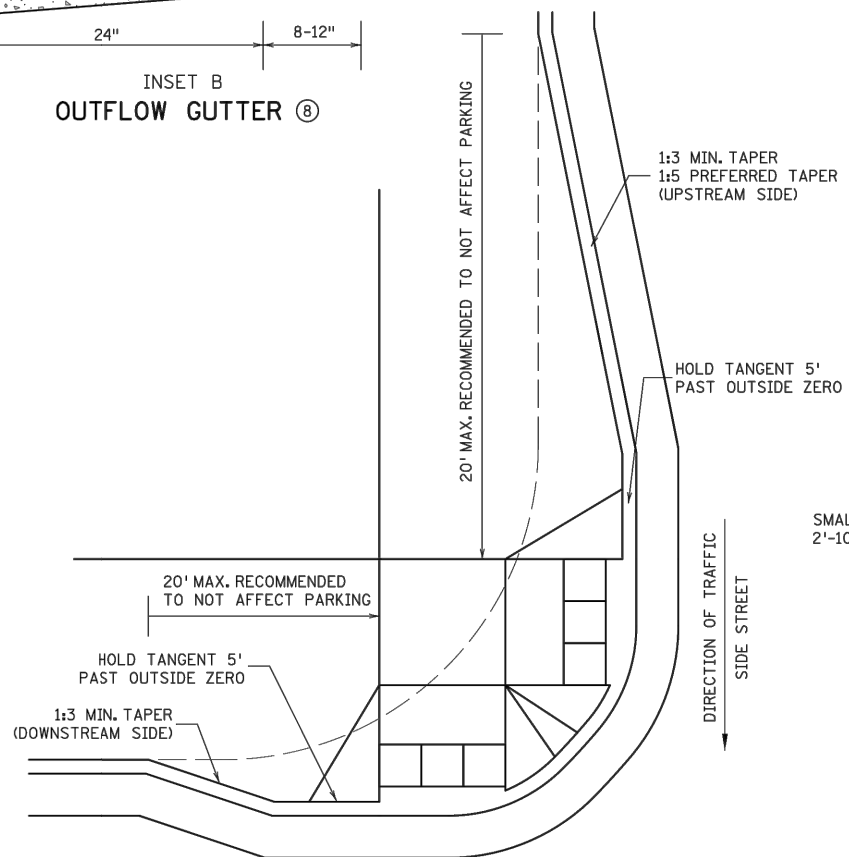
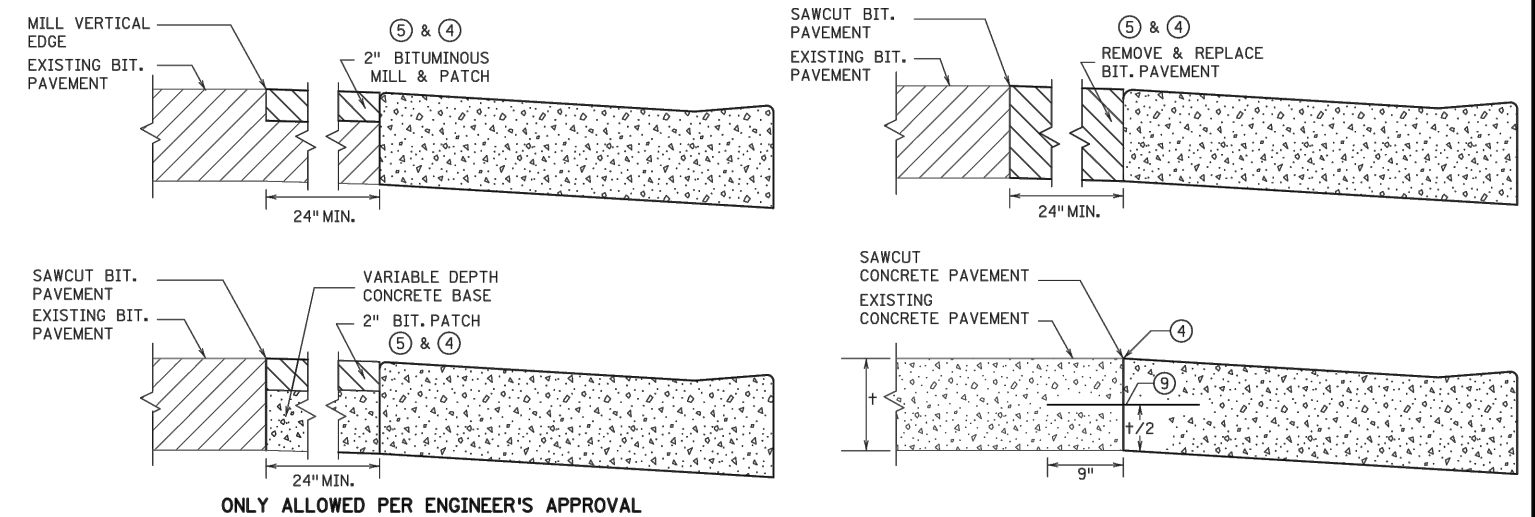
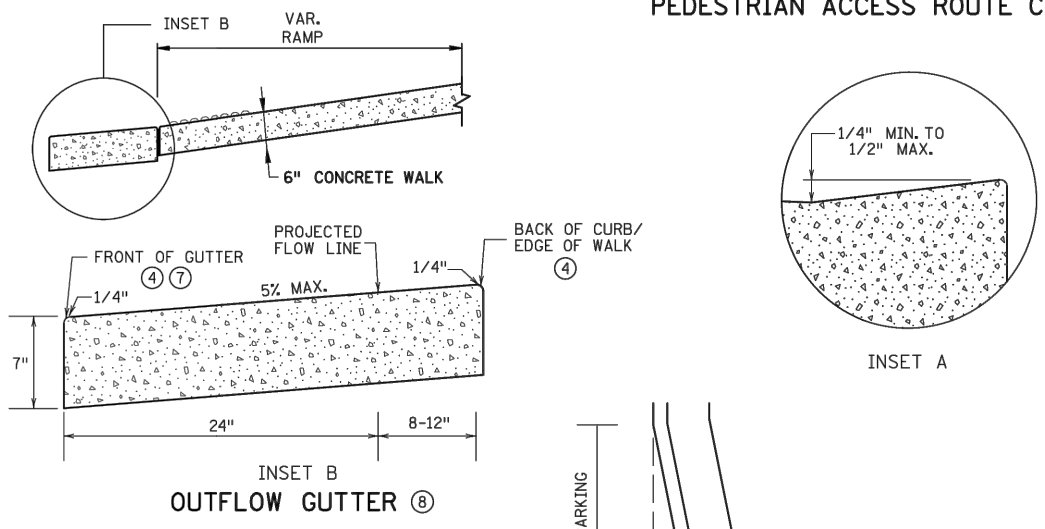
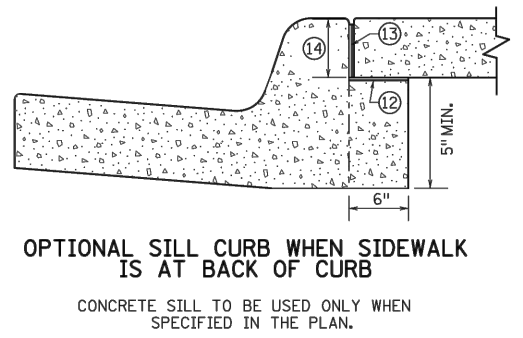
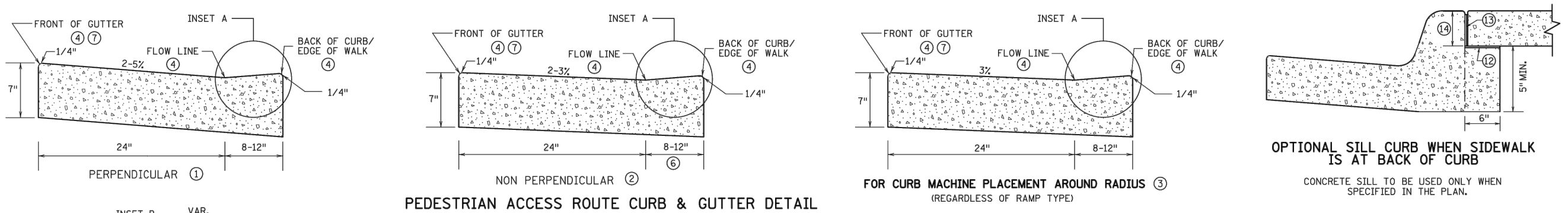
CITY OF RAMSEY  
 7550 SUNWOOD DRIVE  
 RAMSEY, MN 55303  
 (763) 427-1410 FAX (763) 433-9898

MNDOT PEDESTRIAN RAMP DETAILS

WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS  
 CITY PROJECT NO. 22-06  
 CITY OF RAMSEY, MINNESOTA

PLOTTED/REVISED: 4-APR-2018

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- NOTES:**
- POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM. NO PONDING SHALL BE PRESENT IN THE PAR.
  - ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.
  - ① FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMPS.
  - ② 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.
  - ③ BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.
  - ④ THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".
  - ⑤ ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.
  - ⑥ VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.
  - ⑦ 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.
  - ⑧ SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.
  - ⑨ 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.
  - ⑩ 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.
  - ⑪ 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.
  - ⑫ PLACE BOND BREAKER BETWEEN WALK AND TOP OF SILL.
  - ⑬ 1/2" PREFORMED JOINT FILLER PER MNDOT SPEC. 3702.
  - ⑭ DIMENSION TO BE SAME AS SIDEWALK THICKNESS, 4" MIN.

REVISION:  
 APPROVED: JANUARY 23, 2017  
 OPERATIONS ENGINEER

DIRECTION OF TRAFFIC  
 MAIN STREET

	STANDARD PLAN 5-297.250	3 OF 6	<b>PEDESTRIAN CURB RAMP DETAILS</b>	
		APPROVED: 1-23-2017		
	STATE PROJ. NO.	(T.H. )	SHEET NO.	OF SHEETS

DATE	REVISION

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

JOE FERIANECK  
 Date 2/28/22 Lic. No. 57095

DESIGNED BY: JJF  
 DRAWN BY: JJF  
 CHECKED BY: JJF

DATE: 2/28/22  
 FILE: 22-06

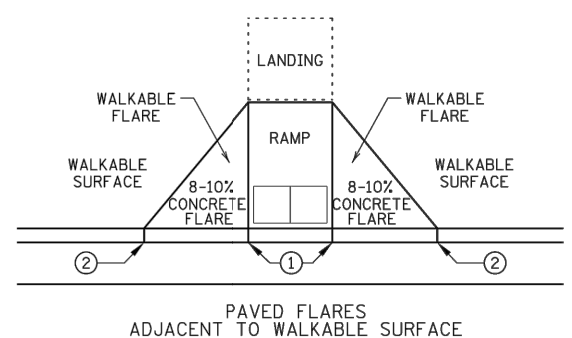
CITY OF RAMSEY  
 7550 SUNWOOD DRIVE  
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 (763) 427-1410 FAX (763) 433-9898

MNDOT PEDESTRIAN RAMP DETAILS

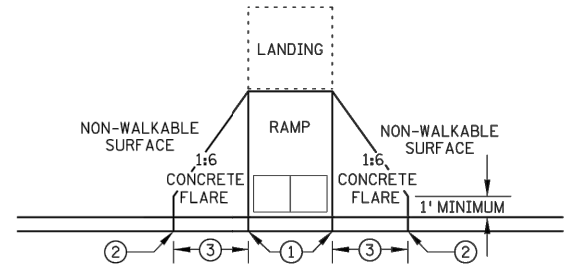
WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS  
 CITY PROJECT NO. 22-06  
 CITY OF RAMSEY, MINNESOTA

PLOTTED/REVISED: 4-APR-2018

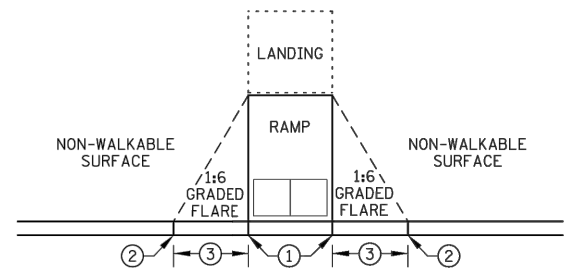
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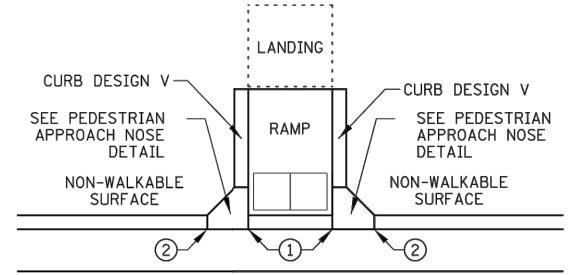
PAVED FLARES  
ADJACENT TO WALKABLE SURFACE



PAVED FLARES  
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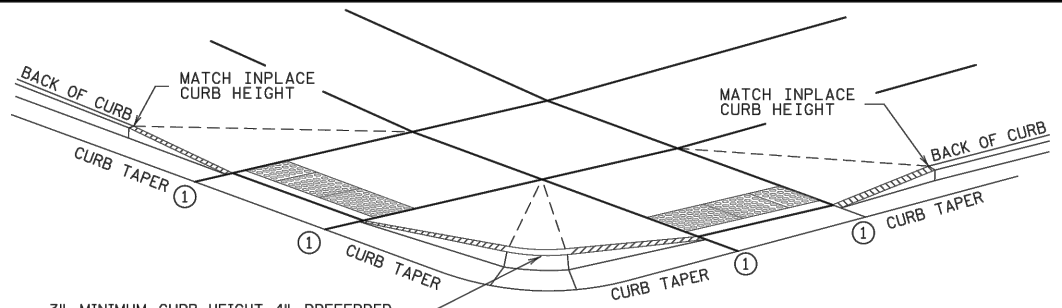


GRADED FLARES



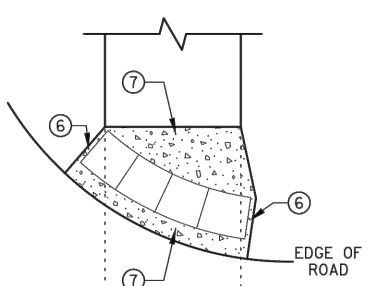
RETURNED CURB ⑤

TYPICAL SIDE TREATMENT OPTIONS ④ ⑪

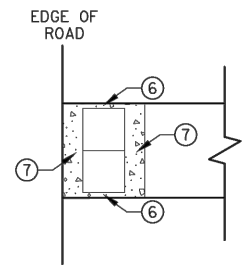


3" MINIMUM CURB HEIGHT, 4" PREFERRED  
(MEASURED AT FRONT FACE OF CURB)  
FOR A MIN. 6" LENGTH (MEASURED ALONG FLOW LINE)

DETECTABLE EDGE WITH CURB AND GUTTER ⑧

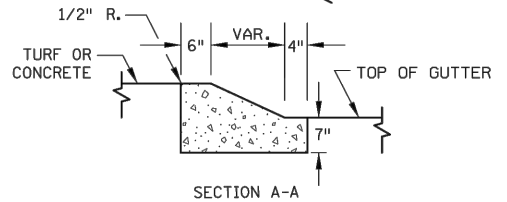
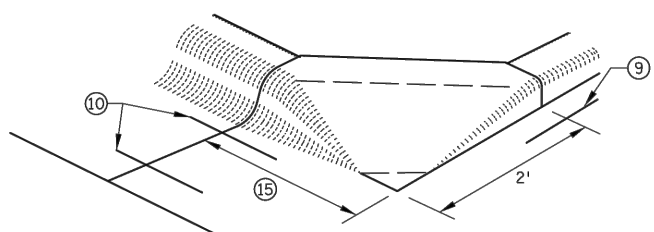


RADIAL DETECTABLE WARNING

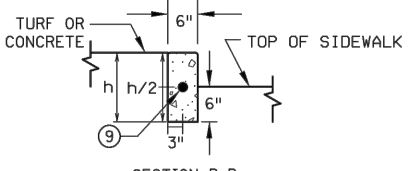


RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER

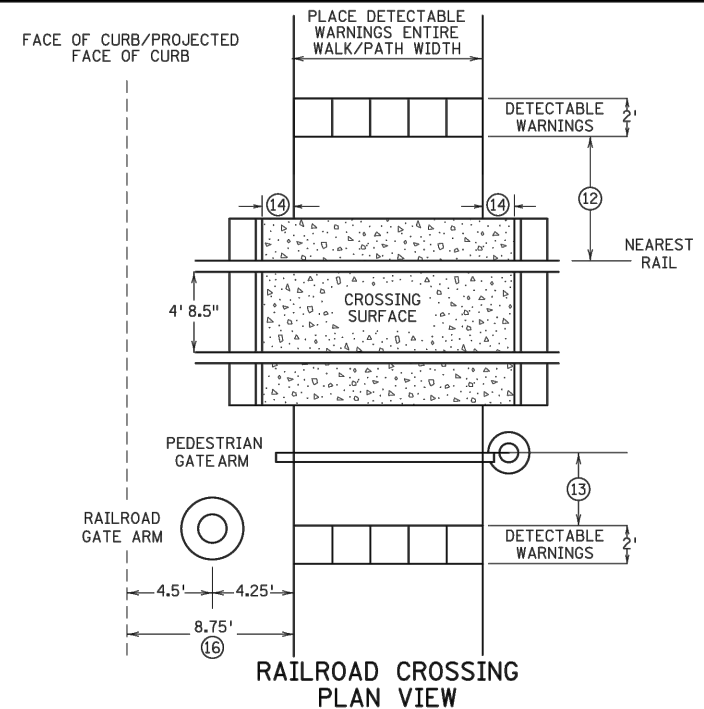
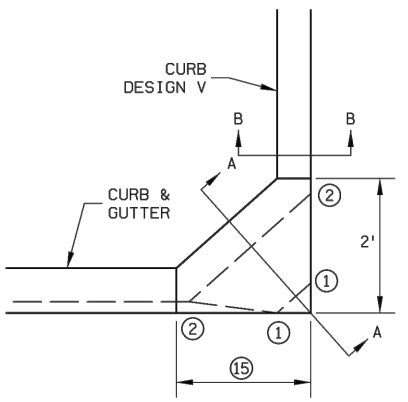


SECTION A-A



SECTION B-B

PEDESTRIAN APPROACH NOSE DETAIL  
(FOR RETURNED CURB SIDE TREATMENT)



RAILROAD CROSSING PLAN VIEW

- NOTES:
- SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.
  - A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.
  - CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.
  - ① 0" CURB HEIGHT.
  - ② FULL CURB HEIGHT.
  - ③ 2' FOR 4" HIGH CURB AND 3' FOR 6" HIGH CURB.
  - ④ 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.
  - ⑤ TYPICALLY USED FOR MEDIANS AND ISLANDS.
  - ⑥ 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.
  - ⑦ 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.
  - ⑧ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.
  - ⑨ 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.
  - ⑩ 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.
  - ⑪ 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.
  - ⑫ 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.
  - ⑬ 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 ⑫.
  - ⑭ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.
  - ⑮ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.
  - ⑯ 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.

REVISION:
APPROVED: JANUARY 23, 2017
<i>[Signature]</i> OPERATIONS ENGINEER

	STANDARD PLAN 5-297.250	4 OF 6	PEDESTRIAN CURB RAMP DETAILS	
	APPROVED: 1-23-2017 REVISED:		STATE PROJ. NO.	(T.H. ) SHEET NO. OF SHEETS

DATE	REVISION

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

JOE FERIANECK  
Date 2/28/22 Lic. No. 57095

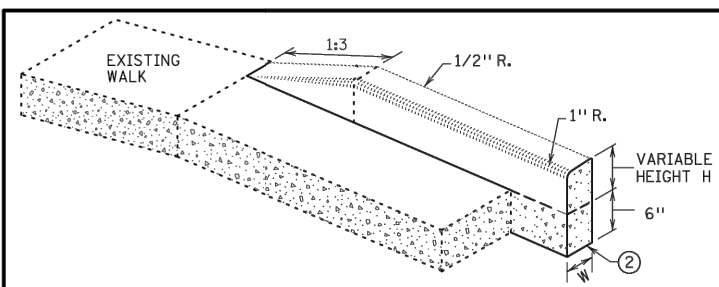
DESIGNED BY: JJF	DATE: 2/28/22
DRAWN BY: JJF	FILE: 22-06
CHECKED BY: JJF	

CITY OF RAMSEY  
7550 SUNWOOD DRIVE  
RAMSEY, MN 55303  
(763) 427-1410 FAX (763) 433-9898

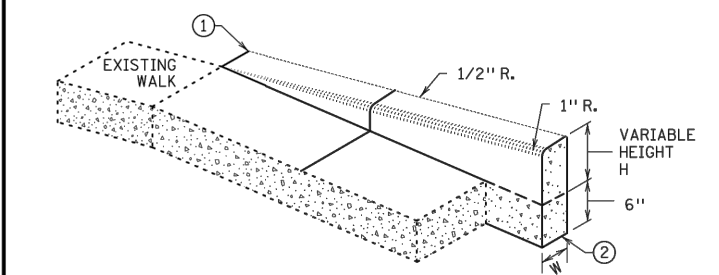
MNDOT PEDESTRIAN RAMP DETAILS

WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS  
CITY PROJECT NO. 22-06  
CITY OF RAMSEY, MINNESOTA

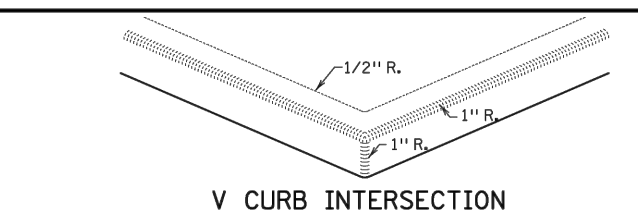
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 PLOTTED/REVISED: 4-APR-2018



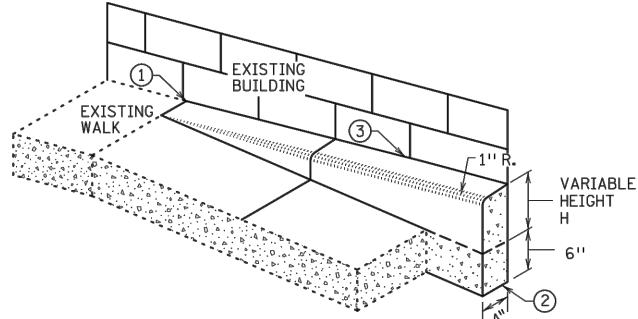
**V CURB ADJACENT TO LANDSCAPE**  
CURB WITHIN SIDEWALK LIMITS



**V CURB ADJACENT TO LANDSCAPE**  
CURB OUTSIDE SIDEWALK LIMITS

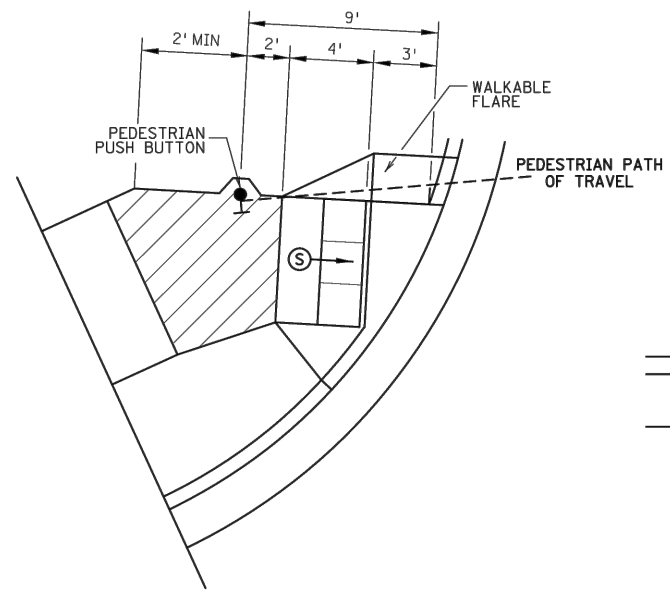


**V CURB INTERSECTION**

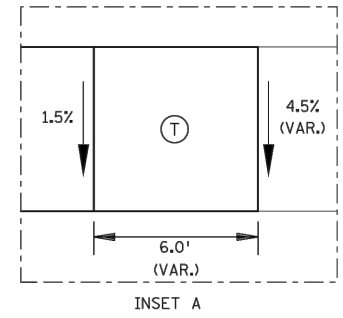
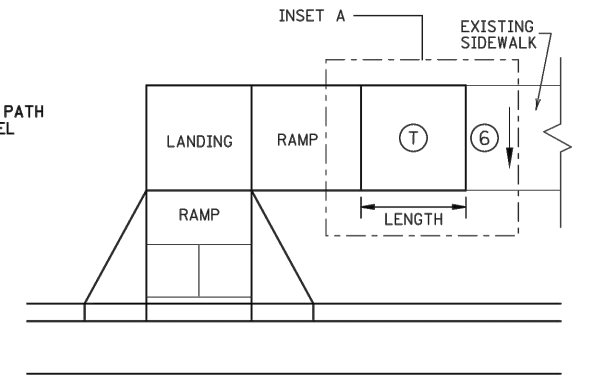


**V CURB ADJACENT TO BUILDING OR BARRIER**

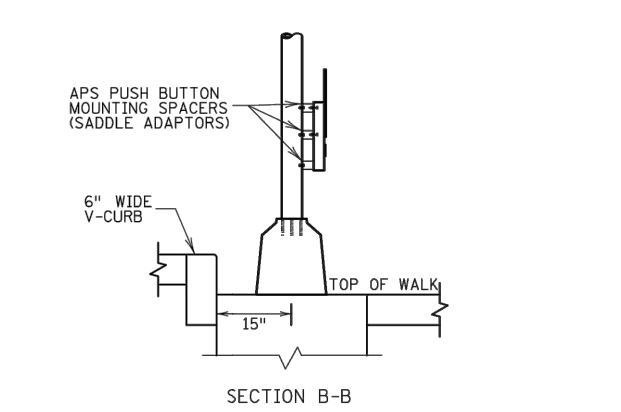
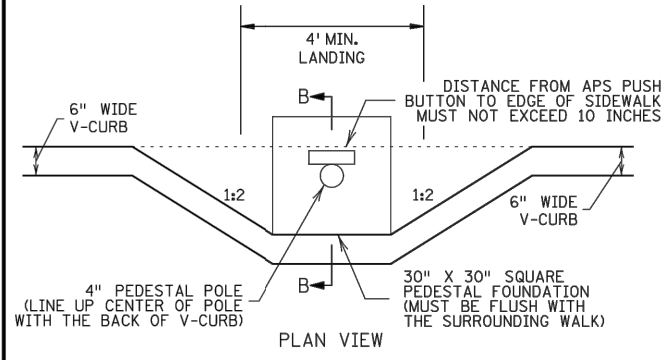
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
< 6"	4"
≥ 6"	6"



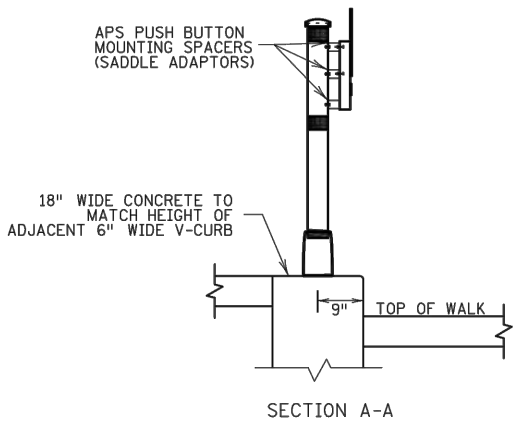
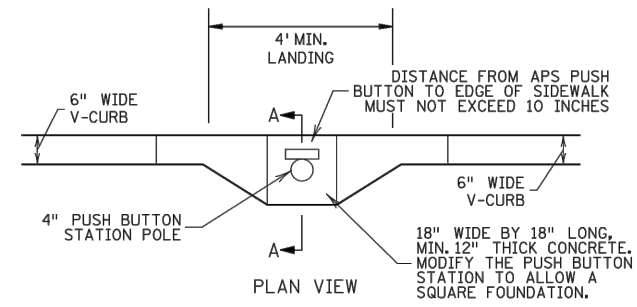
**SEMI-DIRECTIONAL RAMP (3,4,9)**  
3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB  
PRIMARYLY USED FOR APS APPLICATIONS WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK)



**TRANSITION PANEL (4,5)**



**SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)**



**PUSH BUTTON STATION (V-CURB)**

**NOTES:**

- A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.
- ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.
- WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.
- V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.
- V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.
- ① END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.
- ② ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.
- ③ EDGE BETWEEN NEW V CURB AND INPLACE STRUCTURE SHALL BE SEALED AND BOND BREAKER SHALL BE USED BETWEEN EXISTING STRUCTURE AND PLACED V-CURB.
- ④ 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.
- ① TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

REVISION:
APPROVED: JANUARY 23, 2017
<i>[Signature]</i> OPERATIONS ENGINEER

	STANDARD PLAN 5-297.250	5 OF 6	<b>PEDESTRIAN CURB RAMP DETAILS</b>	
	 STATE DESIGN ENGINEER	APPROVED: 1-23-2017 REVISED:		

DATE	REVISION

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

JOE FERIANCEK  
Date 2/28/22 Lic. No. 57095

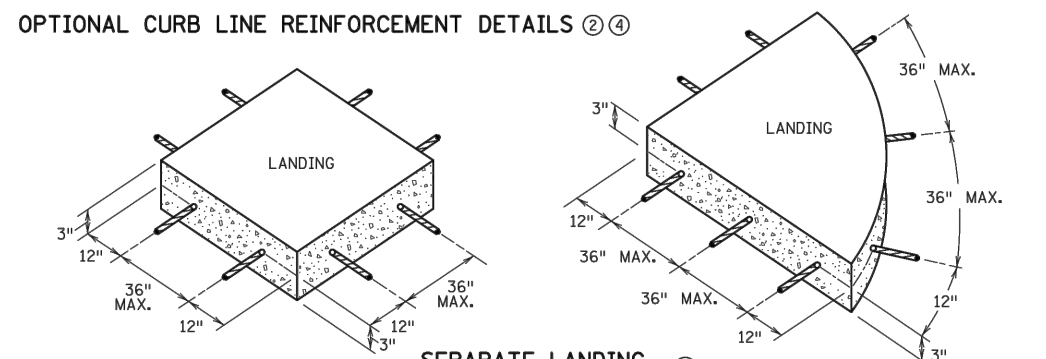
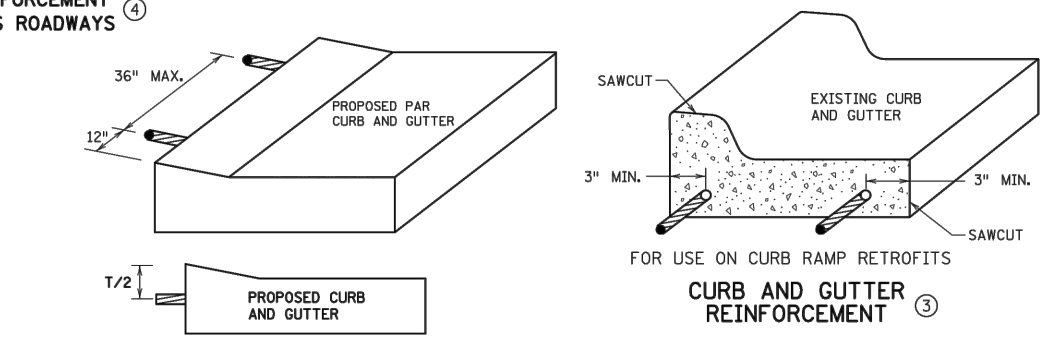
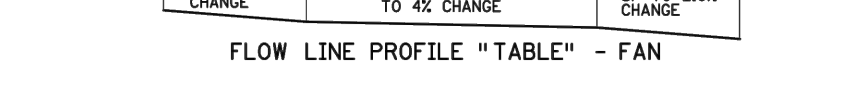
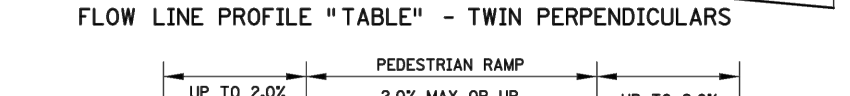
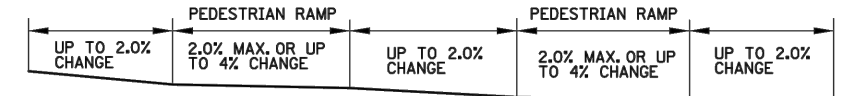
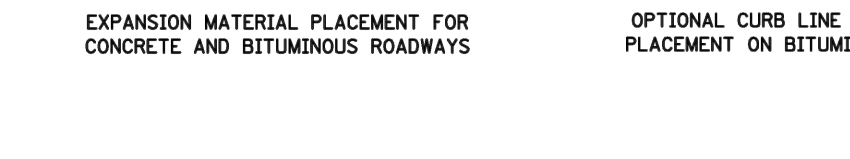
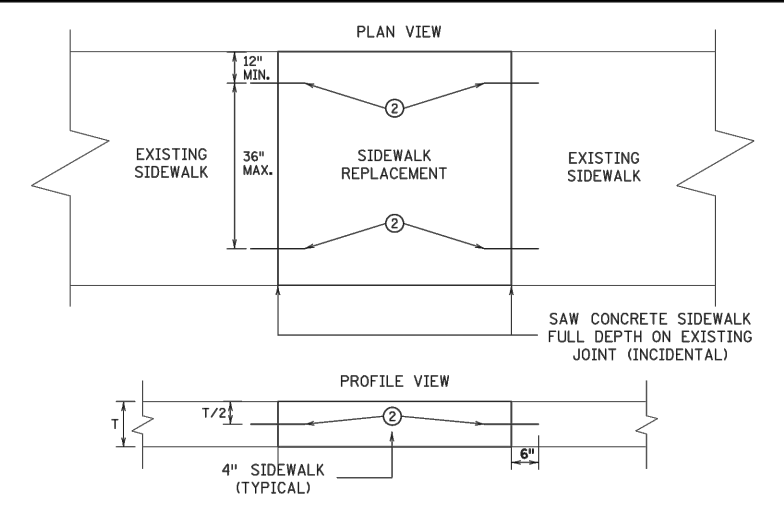
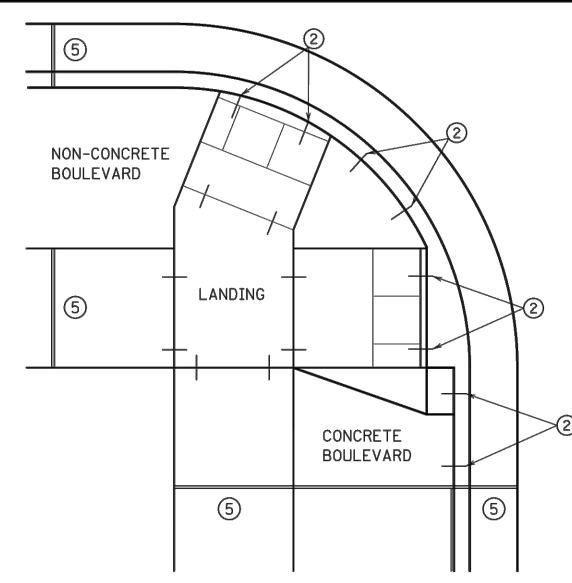
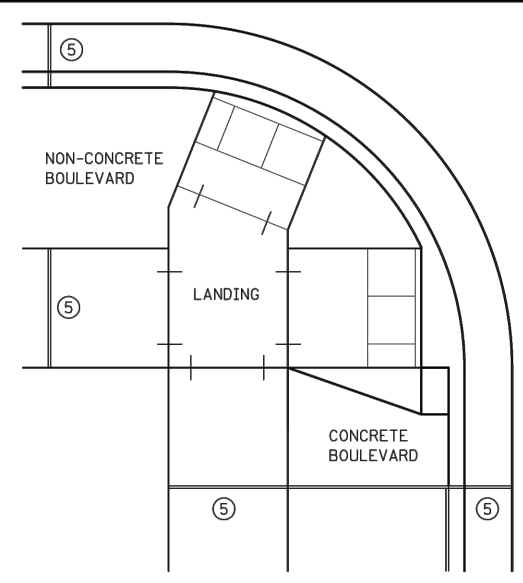
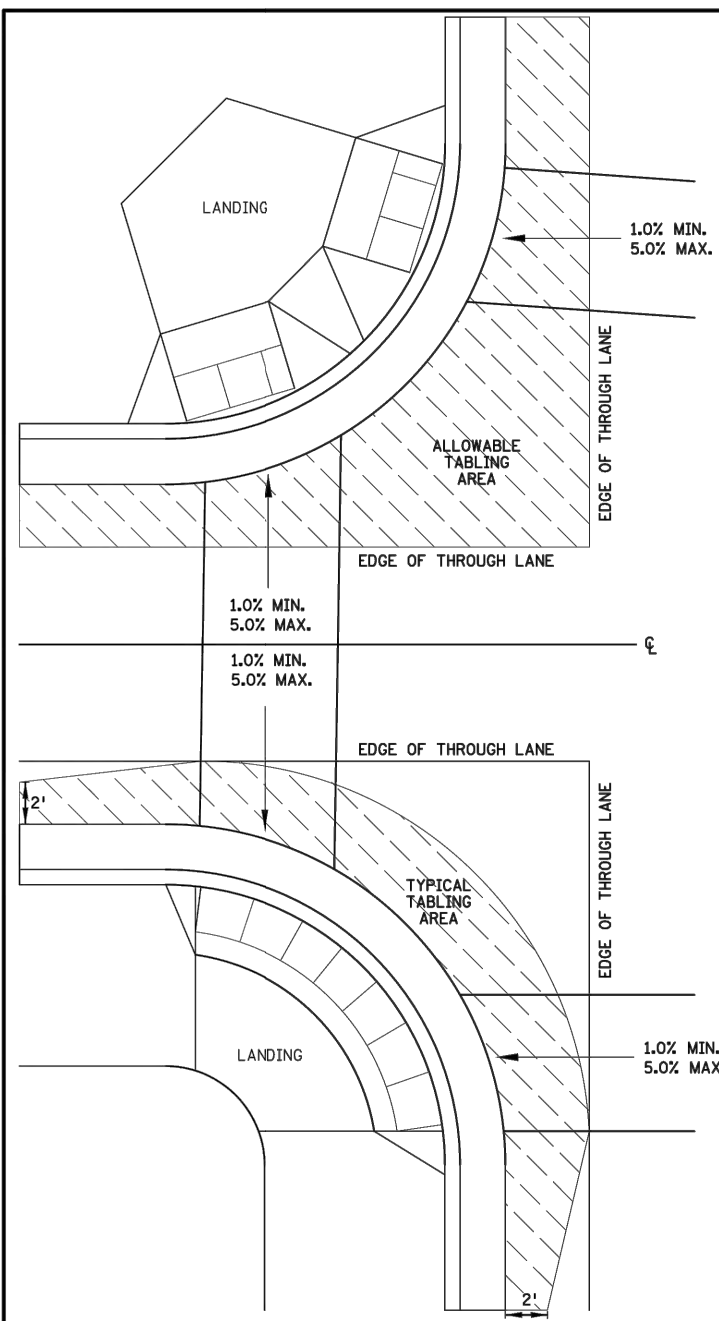
DESIGNED BY: JJF	DATE: 2/28/22
DRAWN BY: JJF	FILE: 22-06
CHECKED BY: JJF	

CITY OF RAMSEY  
 7550 SUNWOOD DRIVE  
 RAMSEY, MN 55303  
 (763) 427-1410 FAX (763) 433-9898

MNDOT PEDESTRIAN RAMP DETAILS

WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS  
 CITY PROJECT NO. 22-06  
 CITY OF RAMSEY, MINNESOTA

PLOTTED/REVISED: 4-APR-2018  
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**CURB LINE AND ROAD CROSSING ADJUSTMENTS**

"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 RAMP 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 AT 36" MAXIMUM CENTER TO CENTER (EPOXY COATED). BARS TO BE ADJUSTED TO MATCH RAMP GRADE.
- 3) DRILL AND GROUT 2 - NO. 4 X 12" LONG REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS WITHIN RADIUS.
- 4) THIS OPTIONAL CURB LINE REINFORCEMENT DETAIL SHOULD ONLY BE USED ON BITUMINOUS ROADWAYS WHEN SPECIFIED IN THE PLAN.
- 5) 1/2 IN. PREFORMED JOINT FILLER MATERIAL PER MNDOT SPEC. 3702.

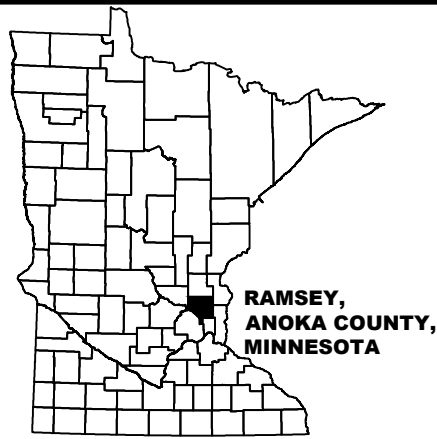
REVISION:
APPROVED: JANUARY 23, 2017
<i>[Signature]</i> OPERATIONS ENGINEER

	STANDARD PLAN 5-297.250	6 OF 6	<b>PEDESTRIAN CURB RAMP DETAILS</b>	
		APPROVED: 1-23-2017 REVISED:		

# STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

## WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS

### CITY OF RAMSEY ANOKA COUNTY, MINNESOTA



#### DESCRIPTION OF CONSTRUCTION ACTIVITIES AND STORMWATER MANAGEMENT:

Construction activities include; Site Grading, Storm Sewer Construction, Temporary Erosion and Sediment Control, Roadway Construction, and Permanent Stabilization.

#### Project Description:

This project consists of reconstruction of 0.88 miles of existing bituminous streets, using full-depth reclamation, replacing bituminous street to the existing grade, spot concrete curb and gutter replacement. The drainage for the existing streets uses concrete curb and gutter to direct flow into storm water catch basins located at low points. Storm water pipes collect the runoff to regional ponds. Minor improvements will be made to existing storm water catch basins, including re-setting structures which have settled. There is no change to the outfall location of the storm water runoff.

#### RESPONSIBLE PARTIES:

The Contractor and Owner must apply for coverage under the MPCA's General Storm Water Permit for Construction Activity as required by the National Pollution Discharge Elimination System (NPDES) Phase II program. Coverage under the permit will begin automatically 7 calendar days after the electronic submittal date or after the postmarked date of a complete application. (Longer time frames will apply to areas disturbing 50 acres or discharge within 1 mile of a special water).

	COMPANY	CONTACT PERSON	PHONE
OWNER:	CITY OF RAMSEY	BRUCE WESTBY, PE	763-433-9825
SWPPP DESIGNER:	CITY OF RAMSEY	JOE FERIANCEK, PE	763-433-9893
CONTRACTOR:			
STIE MANAGER:			
PARTY RESPONSIBLE FOR LONG TERM O&M:	CITY OF RAMSEY	BRUCE WESTBY, PE	763-433-9825

Individuals listed above, including the SWPPP preparer, individual overseeing implementation of, revising and amending the SWPPP, Individuals performing or supervising the installation, maintenance and repair of BMP's must be trained. At least one individual present on the permitted project, or available within 72 hours shall be trained in the applicable job duties. Documentation showing training commensurate with the job duties and responsibilities is required to be included in the SWPPP prior to any work beginning on the site. Copies of the SWPPP preparer information is included in the Project Manual. The Contractor shall provide information for the individual(s) overseeing implementation, supervising installation, maintenance, and repair of BMP's to be included in the Project Manual prior to the start of construction. This information shall be kept up to date until the project NOT is filed.

#### Documentation shall include:

- Names of trained personnel associated with this project.
- Dates of training, names of instructor(s) and entity providing training.
- Content of training course or workshop including the number of hours trained.
- As an alternative to a, b, and c listed above, a photocopy of the current Erosion and Stormwater Management card issued by the University of Minnesota can be attached to the SWPPP as suitable documentation of training.

#### DOCUMENTATION RETENTION:

The following documentation will be retained for a period of not less than 3-years from the date of submittal of the NOT.

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

#### IMPLEMENTATION SCHEDULE AND PHASING:

- Furnish & Install perimeter sediment control and inlet protection.
- Reclamation of existing bituminous pavement.
- Rough grade site.
- Furnish & install bituminous pavement.
- Add additional temporary BMP's as necessary during construction based on inspection reports.
- Submit Notice of Termination (NOT) to MPCA within 30 days of final stabilization.

#### FINAL STABILIZATION:

The permittee(s) must ensure final stabilization of the site. The permittee(s) must submit a NOT within 30 days after final stabilization is complete, or another owner/operator (permittee) has assumed control over all areas of the site which have not undergone final stabilization. Final stabilization can be achieved in one of the following ways:

- All soil disturbing activities at the site have been completed and all soils must be stabilized by a uniform perennial vegetative cover with a density of 70 percent over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions and;
  - All drainage ditches, constructed to drain water from the site after construction is complete, must be stabilized to preclude erosion;
  - All temporary synthetic, and structural erosion prevention and sediment control BMP's (such as silt fence) must be removed as part of the site final stabilization; and
  - The permittee(s) must clean out all sediment from conveyances and from temporary sedimentation basins to be used as permanent water quality management basins. Sediment must be stabilized to prevent it from being washed back into the basin, conveyances or drainage ways discharging off-site or to surface waters. The cleanout of permanent basins must be sufficient to return the basin to design capacity.
- Final vegetation cover shall be in the Project Specifications.
- For residential construction only, final stabilization has been achieved when temporary erosion protection and down gradient perimeter control for individual lots has been completed and the residence has been transferred to the homeowner. Additionally, the permittee must distribute the MPCA "Homeowner fact sheet" to the homeowner to inform the homeowner of the need for, and benefits of, final stabilization.

#### SPECIAL ENVIRONMENTAL CONSIDERATIONS:

Was an environmental review required for this project or any part of a common plan of development or sale that includes all or any portion of this project?	NO
Does any portion of the site have the potential to affect threatened or endangered species?	NO
Does any portion of this site discharge to a Calcareous Fen and the letter of approval from the DNR is located in the Project Manual?	NO
Will any portion of this site potentially affect properties listed on the National Register of Historic Places or a Known or Discovered Archeological site?	NO
Have any Karst features been identified in the project vicinity?	NO
Is compliance with temporary or permanent stormwater management design requirements infeasible for this project?	NO

#### POLLUTION PREVENTION MANAGEMENT MEASURES:

The permittee(s) shall implement the following pollution prevention management measures on the site:

- Solid waste: collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal regulations.
- Hazardous materials: oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations.
- External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on site.

#### GENERAL STORMWATER DISCHARGE REQUIREMENTS:

All requirements listed in Part 15 of the permit for the design of permanent stormwater treatment system and discharge have been included in the preparation of this SWPPP. These include but are not limited to:

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

#### RECEIVING WATERS:

Receiving waters, including surface water, wetlands, Public Waters, and stormwater ponds are identified on the USGS 7.5min quad map within 1 mile of the project boundary. Receiving waters that are impaired, the impairment and WLA are listed as follows. All specific BMP's relative to construction activities listed in this permit for special and impaired waters have been incorporated into this plan. All specific BMP's listed in approved TMDLs and those BMP's listed for construction related waste load allocations have also been incorporated.

NAME OF WATER BODY	TYPE (DITCH, POND, WETLAND, LAKE, ETC.)	APPENDIX A SPECIAL WATER?	FLOWS TO IMPAIRED WATER WITHIN 1 MILE?	USEPA APPROVED TMDL?
RUM RIVER	RIVER	YES	YES	YES

IMPAIRMENTS: NOT FOR CONSTRUCTION, MERCURY AND FISH CONSUMPTION

#### PROJECT AREAS:

Total project size (disturbed area) =	3.60 acres
Existing area of impervious surface =	3.55 acres
Post construction area of impervious surface =	3.55 acres
New impervious surface area created =	0.000 acres

Planned construction start date: June 2022  
Planned construction completion date: September 2022

#### PROJECT LOCATION:

County: ANOKA Township: 32 Range: 25 Section: 26 Latitude: 45.235242 Longitude: -93.411178

#### PERMANENT STORMWATER MANAGEMENT SYSTEM:

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

- Wet Sedimentation Pond
- Infiltration / Filtration
- Regional Pond
- Permanent Stormwater Management Not Required

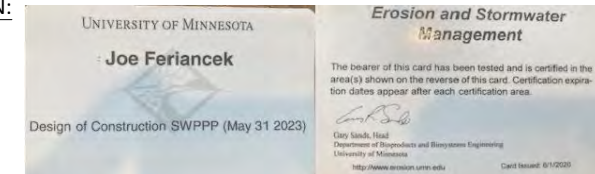
#### LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN:

DESCRIPTION	LOCATION
TEMPORARY EROSION CONTROL MEASURES	SHEETS No. 13
FINAL STABILIZATION	SHEETS No. 22 - 29
STORM SEWER TABULATION	SHEETS No. 22 - 29
EROSION AND SEDIMENT CONTROL DETAILS	SHEETS No. 03

#### EROSION AND SEDIMENT CONTROL QUANTITIES:

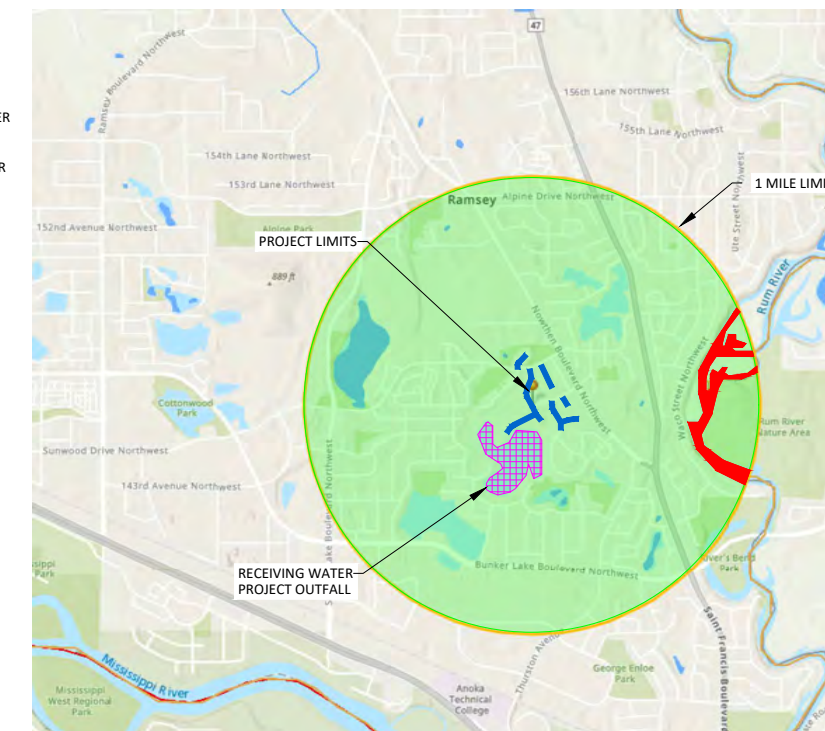
DESCRIPTION	QUANTITY
SILT FENCE TYPE MS	60 LF
STORM DRAIN INLET PROTECTION	15 EA.
STABILIZING EROSION CONTROL MAT	30 SY
SEEDING AREA	0.05 ACRES

#### CERTIFICATION:



#### LEGEND

- PROJECT LIMITS
- 1 MILE LIMIT
- RECEIVING WATER
- IMPAIRED WATER



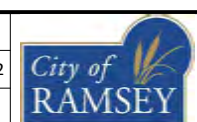
DATE	REVISION

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

*Joe Feriancek*  
JOE FERIANCEK  
Date: 2/28/22 Lic. No. 57095

DESIGNED BY: JJF  
DRAWN BY: JJF  
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DATE: 2/28/22  
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CITY OF RAMSEY  
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RAMSEY, MN 55303  
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SWPPP

WOOD POND HILLS 2ND - 5TH STREET  
RECONSTRUCTIONS  
CITY PROJECT NO. 22-06  
CITY OF RAMSEY, MINNESOTA

SHEET 11 OF 29 SHEETS

**SEQUENCE OF CONSTRUCTION:**

Construction shall proceed in the following sequence:

1. Contractor shall schedule and conduct a pre-construction meeting with the City.
2. Contractor shall secure all necessary permits and licenses.
3. Furnish & install erosion control measures.
4. Maintain erosion control measures, i.e. silt fence, inlet protection.
5. Reclaim existing bituminous pavement and base.
6. Scarify, grade and compact 1' below reclaim section.
7. Re-install reclamation material as necessary, grade and compact reclamation material.
8. Furnish & install base course of bituminous pavement
9. Complete concrete curb and gutter repairs, install restoration per plan.
10. Furnish & install bituminous pavement.
11. Remove erosion control after vegetation is established.

**ADDITIONAL STORMWATER POLLUTION PREVENTION, GRADING PLAN, AND SCHEDULE NOTES:**

1. All slopes to be 1:4 unless approved by the city engineer.
2. Below grade structures shall be protected and meet drainage requirements per the city engineer.
3. Construction operation hours are from 7:00 a.m. - 10:00 p.m. Monday through Saturday.
4. Call Gopher State One Call for utility locations prior to any work at 1-800-252-1166.
5. Permittee may need to modify SWPPP if the general objectives of controlling pollutants is not being met.
6. Operator shall implement these and any other BMP's that may be required to meet the general permit requirements.
7. Site is not in karst area or pollution or remediation site.
8. Silt fence to be installed downhill from any grading activity.
9. If tracking onto adjacent streets occurs a street sweeper shall be used to clean streets within 8 hours or as directed by the engineer.
10. Dust control may be necessary during rough grading. No grading can take place if wind speed exceeds 25 mph.
11. Solid waste shall be collected and disposed of properly and must comply with MPCA disposal requirements.
12. Hazardous materials shall be stored properly to prevent spills and vandalism.
13. No engine degreasing is allowed on site. External washing of vehicles shall be limited to a defined area (bone yard) on site.
14. Permittee(s) shall adhere to all SWPPP specifications on the plan and other MPCA permit requirements.

**EROSION PREVENTION PRACTICES:**

1. The permittee(s) must plan for and implement appropriate construction phasing, vegetative buffer strips, horizontal slope grading, and other construction practices that minimize erosion, so that the inspection and maintenance requirements are complied with. The location of areas not to be disturbed must be delineated (e.g. with flags, stakes, signs, silt fence, etc.) on the development site before work begins.
2. All exposed soil areas must be stabilized as soon as practical, but in no case later than 7 days after the construction area has temporarily or permanently ceased.  
These areas include constructed stormwater management pond side slopes, and any exposed soil areas with a positive slope to a stormwater conveyance system, such as a curb and gutter system, storm sewer inlet, temporary or permanent drainage ditch or other natural or man made systems that discharge to a surface water.
3. The normal wetted perimeter of any temporary or permanent drainage ditch that drains water from a construction site, or diverts water around a site, must be stabilized within 200 lineal feet from the property edge, or from the point of discharge to any surface water. Stabilization must be completed within 24 hours of connecting to a surface water.
4. Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours of connection to a surface water.
5. All disturbed areas, except roadways, building areas, parking areas, islands and sidewalk, shall be restored with minimum 4 inches topsoil, seeded and mulched within 7 days of completion of site grading. Seeding shall be in accordance with MnDOT Specification 2575. Where side slopes exceed or equal 1:3 and running slope is greater than 1:50, a polypropylene netting or wood fiber blanket shall be provided and staked over the mulched area. Seed and mulch types and applications rates are per plan and specification.
6. Refer to restoration plan for areas to be seeded or sodded for erosion control.

**DEWATERING AND BASIN DRAINING:**

1. Dewatering or basin draining (e.g. pumped discharges, trench/ditch cuts for drainage) related to the construction activity that may have turbid or sediment laden discharge water must be discharged to a temporary or permanent sedimentation basin on the project site whenever possible. If the water cannot be discharged to a sedimentation basin prior to entering the surface water, it must be treated with the appropriate BMP's, such that the discharge does not adversely affect the receiving water or downstream landowners. The permittee(s) must ensure that discharge points are adequately protected from erosion and scour. The discharge must be dispersed over natural rock rip rap, sand bags, plastic sheeting or other accepted energy dissipation measures. Adequate sedimentation control measures are required for discharge water that contains suspended solids.
2. All water from dewatering or basin draining activities must be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on downslope properties, or inundation in wetlands causing significant adverse impact to the wetland.

**SEDIMENT CONTROL PRACTICES:**

1. Sediment control practices must minimize sediment from entering surface waters, including curb and gutter systems and storm sewer inlets.
  - a. Temporary or permanent drainage ditches and sediment basins that are designed as part of a treatment system (e.g. ditches with rock check dams) require sediment control practices only as appropriate for site conditions.
  - b. If the down gradient treatment system is overloaded, additional upgradient sediment control practices must be installed to eliminate the overloading, and the SWPPP must be amended to identify these additional practices.
  - c. In order to maintain sheet flow and minimize rills and/or gullies, there shall be no unbroken slope length of greater than 75 feet for slopes with a grade of 1:3 or steeper.
2. Sediment control practices must be established on all down gradient perimeters before any upgradient land disturbing activities begin. These practices shall remain in place until final stabilization has been established.
3. The timing of the installation of sediment control practices may be adjusted to accommodate short-term activities such as clearing or grubbing, or passage of vehicles. Any short-term activity must be completed as quickly as possible and the sediment control practices must be installed immediately after the activity is completed. However, sediment control practices must be installed before the next precipitation event even if the activity is not complete.
4. All storm drain inlets must be protected by appropriate BMP's during construction until all sources with potential for discharging to the inlet have been stabilized.
5. Temporary soil stockpiles must have silt fence or other effective sediment controls, and cannot be placed in surface waters, including stormwater conveyances such as curb and gutter systems, or conduits and ditches.
6. Stockpile areas which remain on the site for more than seven days shall be seeded, mulched, and surrounded by silt fence.
7. Vehicle tracking of sediment from the construction site must be minimized by BMP's such as stone pads, concrete or steel wash racks, or equivalent systems. Street sweeping must be used if such BMPs are not adequate to prevent sediment from being tracked onto the street.
8. The permittee must install temporary sedimentation basins as required.

**INSPECTIONS AND MAINTENANCE:**

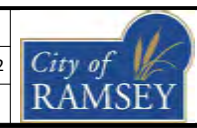
1. The permittee(s) (either the owner or operator, whoever is identified in the SWPPP) must routinely inspect the construction site once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 0.5-inches in 24 hours. Following an inspection that occurs within 24 hours after a rainfall event, the next inspection must be conducted within 7 days.
2. All inspections and maintenance conducted during construction must be recorded in writing and these records must be retained with the SWPPP. Records of each inspection and maintenance activity shall include:
  - a. Date and time of inspections;
  - b. Name of persons conducting inspections;
  - c. Accurate findings of inspections, including the specific location where corrective actions are needed;
  - d. Corrective actions taken (including dates, times, and party completing maintenance activities);
  - e. Date of all rainfall events greater than ½ inches in 24 hours, and the amount of rainfall for each event. Permittee(s) must obtain rainfall amounts by either a properly maintained rain gauge installed onsite, a weather station that is within one (1) mile of your location, or a weather reporting system that provides site specific rainfall data from radar summaries;
  - f. If permittee(s) observe a discharge (i.e., color, odor, settled or suspended solids, oil sheen, and other obvious indicators of pollutant(s));
  - g. Any amendments to the SWPPP proposed as a result of the inspection must be documented as required in Section 6 of the general permit within seven (7) calendar days.
3. Where parts of the construction site have undergone final stabilization, but work remains on other parts of the site, inspections of the stabilized areas may be reduced to once per month. Where work has been suspended due to frozen ground conditions, the required inspections and maintenance must take place within 24 hours after runoff occurs at the site or 24 hours prior to resuming construction, whichever occurs first.
4. All erosion prevention and sediment control BMP's must be inspected to ensure integrity and effectiveness. All nonfunctional BMP's must be repaired, replaced, or supplemented with functional BMP's. The permittee(s) must investigate and comply with the following inspection and maintenance requirements:
  - a. All silt fence must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches ½ of the height of the fence. These repairs must be made within 24 hours of discovery, or as soon as field conditions allow access.
  - b. Temporary and permanent sedimentation basins must be drained and the sediment removed when the depth of sediment collected in the basin reaches ½ the storage volume. Drainage and removal must be completed within 72 hours of discovery, or as soon as field conditions allow access.
  - c. Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of sediment being deposited by erosion. The permittee(s) must remove all deltas and sediment deposited in surface waters, including drainage ways, catch basins, and other drainage systems, and restabilize the areas where sediment removal results in exposed soil. The removal and stabilization must take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints. The permittee shall use all reasonable efforts to obtain access. If precluded, removal and stabilization must take place within seven (7) calendar days of obtaining access. The permittee is responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work.
  - d. Construction site vehicle exit locations must be inspected for evidence of off-site sediment tracking onto paved surfaces. Tracked sediment must be removed from all paved surfaces within 3 hours after notification by the City that sweeping is required.
    - e. The permittee(s) are responsible for the operation and maintenance of temporary and permanent water quality management BMP's as well as all erosion prevention and sediment control BMP's, for the duration of the construction work at the site. The permittee(s) are responsible until another permittee has assumed control over all areas of the site that have not been finally stabilized or the site has undergone final stabilization, and a NOT has been submitted to the MPCA.
  - e. If sediment escapes the construction site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts (e.g. fugitive sediment in streets could be washed into storm sewers by the next rain and/or pose a safety hazard to users of public streets).
5. All infiltration areas must be inspected to ensure that no sediment from ongoing construction activities is reaching the infiltration area and these areas are protected from compaction due to construction equipment driving across the infiltration area.
6. Storm sewer pipes and structures to be inspected and cleaned out.

DATE	REVISION

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*Joe Feriancek*  
 JOE FERIANCEK  
 Date 2/28/22 Lic. No. 57095

DESIGNED BY:	JJF	DATE:	2/28/22
DRAWN BY:	JJF	FILE:	22-06
CHECKED BY:	JJF		






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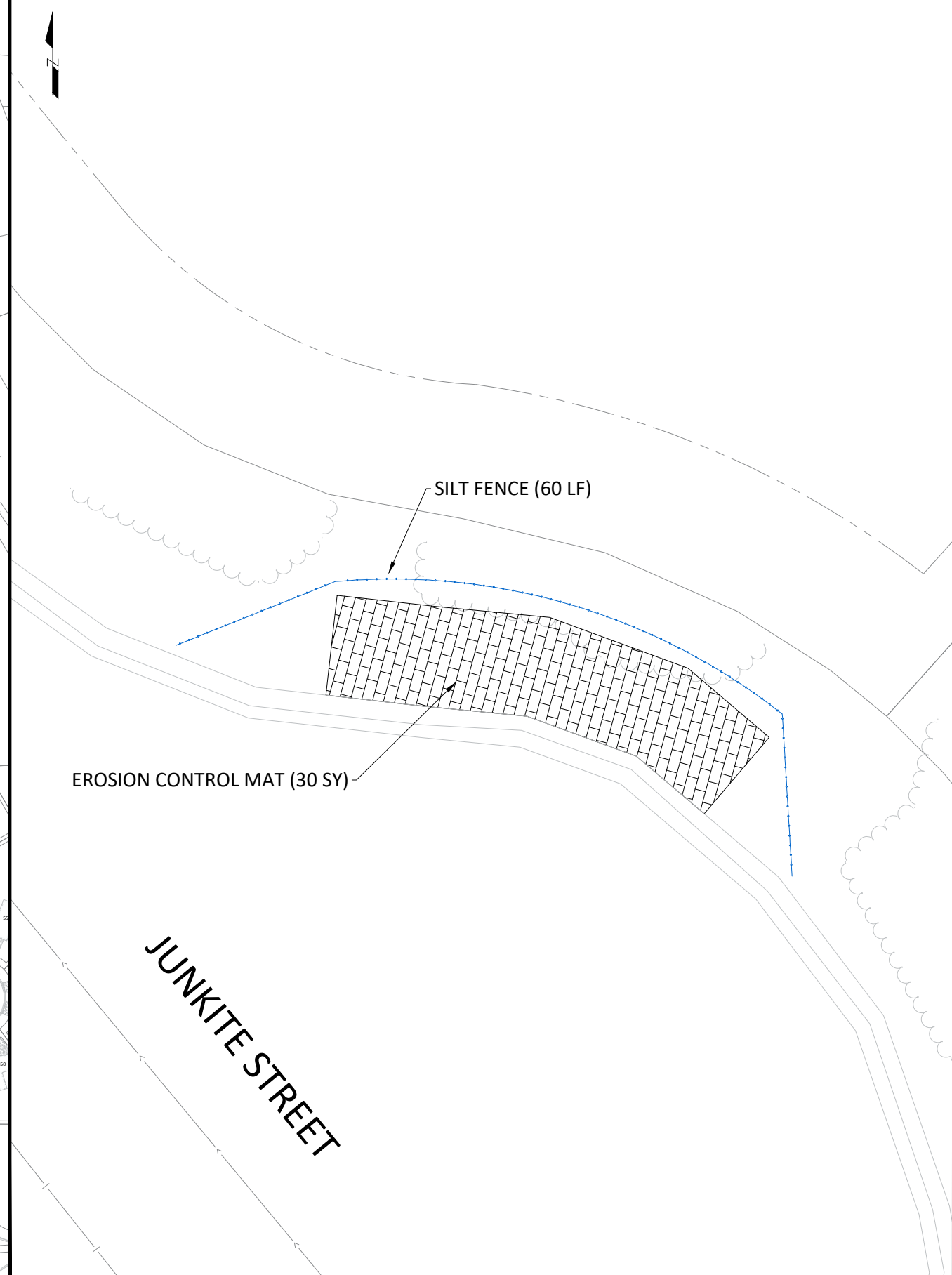
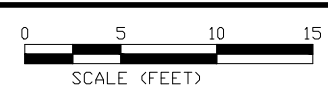
SWPPP

WOOD POND HILLS 2ND - 5TH STREET  
 RECONSTRUCTIONS  
 CITY PROJECT NO. 22-06  
 CITY OF RAMSEY, MINNESOTA



**LEGEND**

-  INLET PROTECTION
-  SILT FENCE
-  EROSION CONTROL MAT



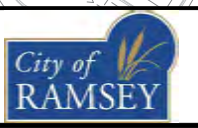
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





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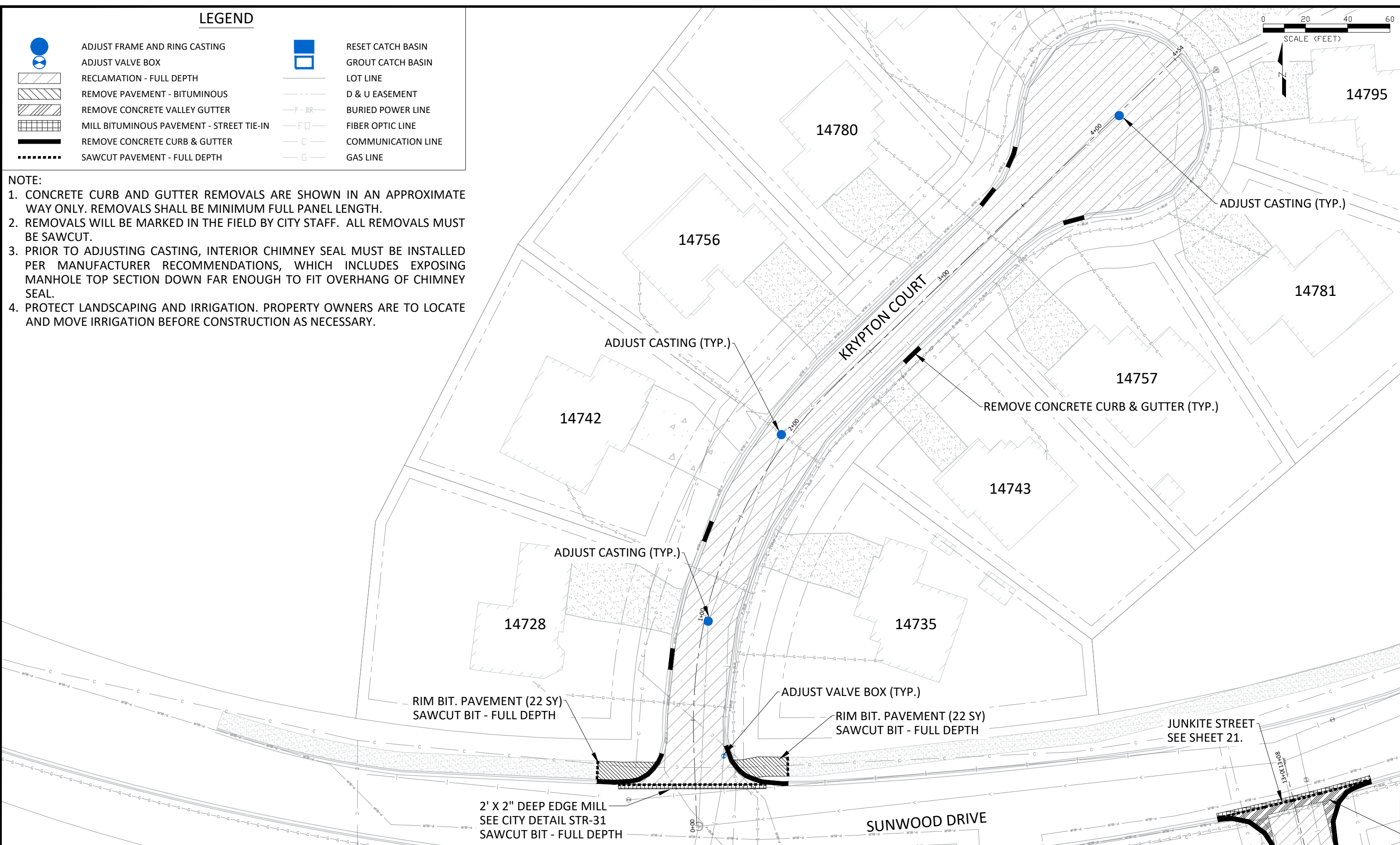
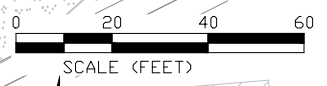
EROSION CONTROL

WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS  
 CITY PROJECT NO. 22-06  
 CITY OF RAMSEY, MINNESOTA

**LEGEND**

- |  |  |   |                    |
|--|--|---|--------------------|
|  | ADJUST FRAME AND RING CASTING            |  | RESET CATCH BASIN  |
|  | ADJUST VALVE BOX                         |  | GROUT CATCH BASIN  |
|  | RECLAMATION - FULL DEPTH                 |  | LOT LINE           |
|  | REMOVE PAVEMENT - BITUMINOUS             |  | D & U EASEMENT     |
|  | REMOVE CONCRETE VALLEY GUTTER            |  | BURIED POWER LINE  |
|  | MILL BITUMINOUS PAVEMENT - STREET TIE-IN |  | FIBER OPTIC LINE   |
|  | REMOVE CONCRETE CURB & GUTTER            |  | COMMUNICATION LINE |
|  | SAWCUT PAVEMENT - FULL DEPTH             |  | GAS LINE           |

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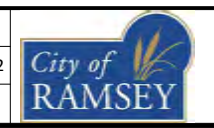


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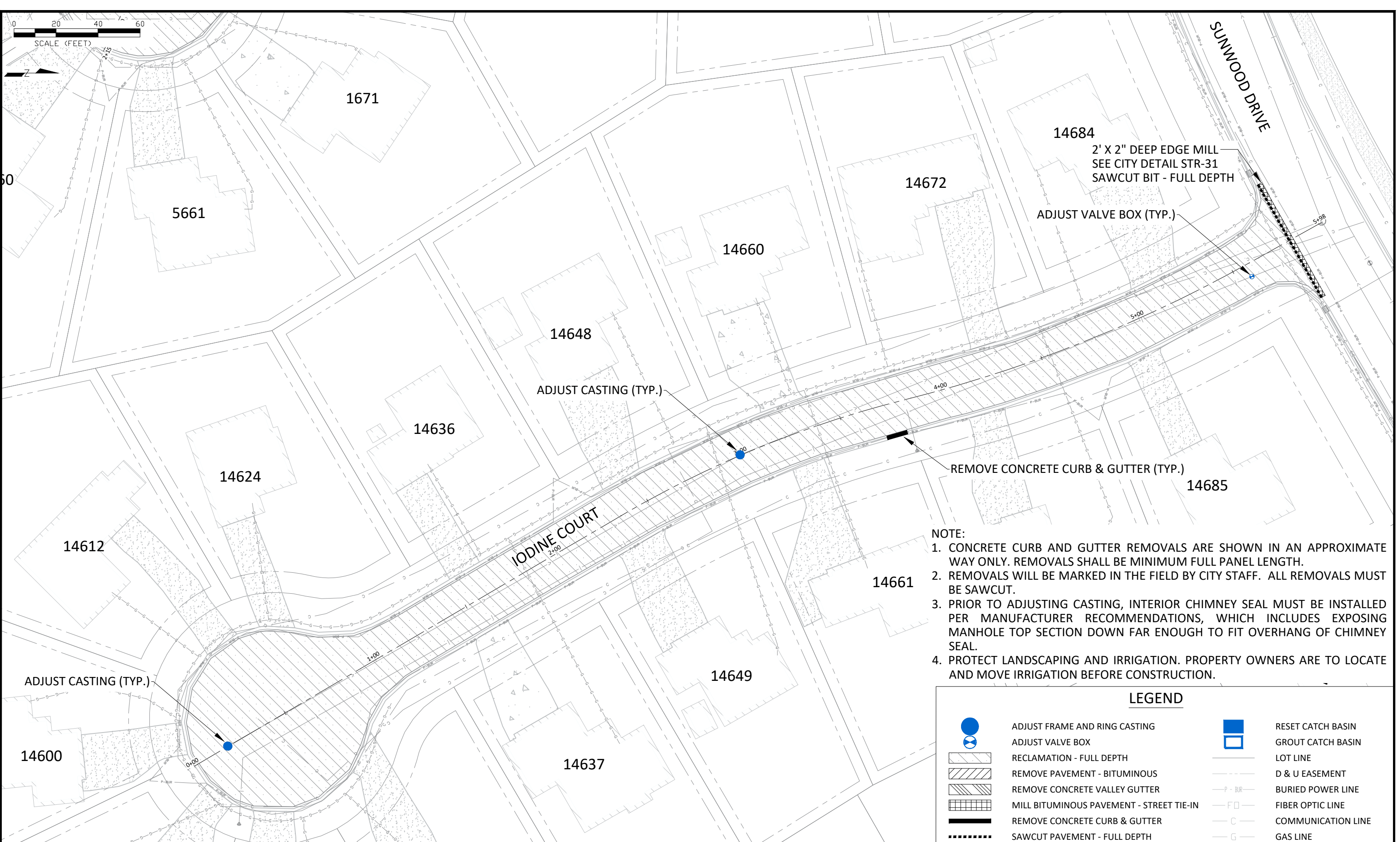
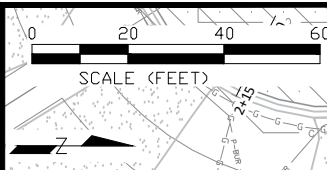
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EXISTING CONDITIONS & REMOVALS

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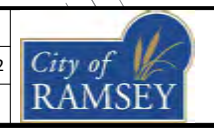
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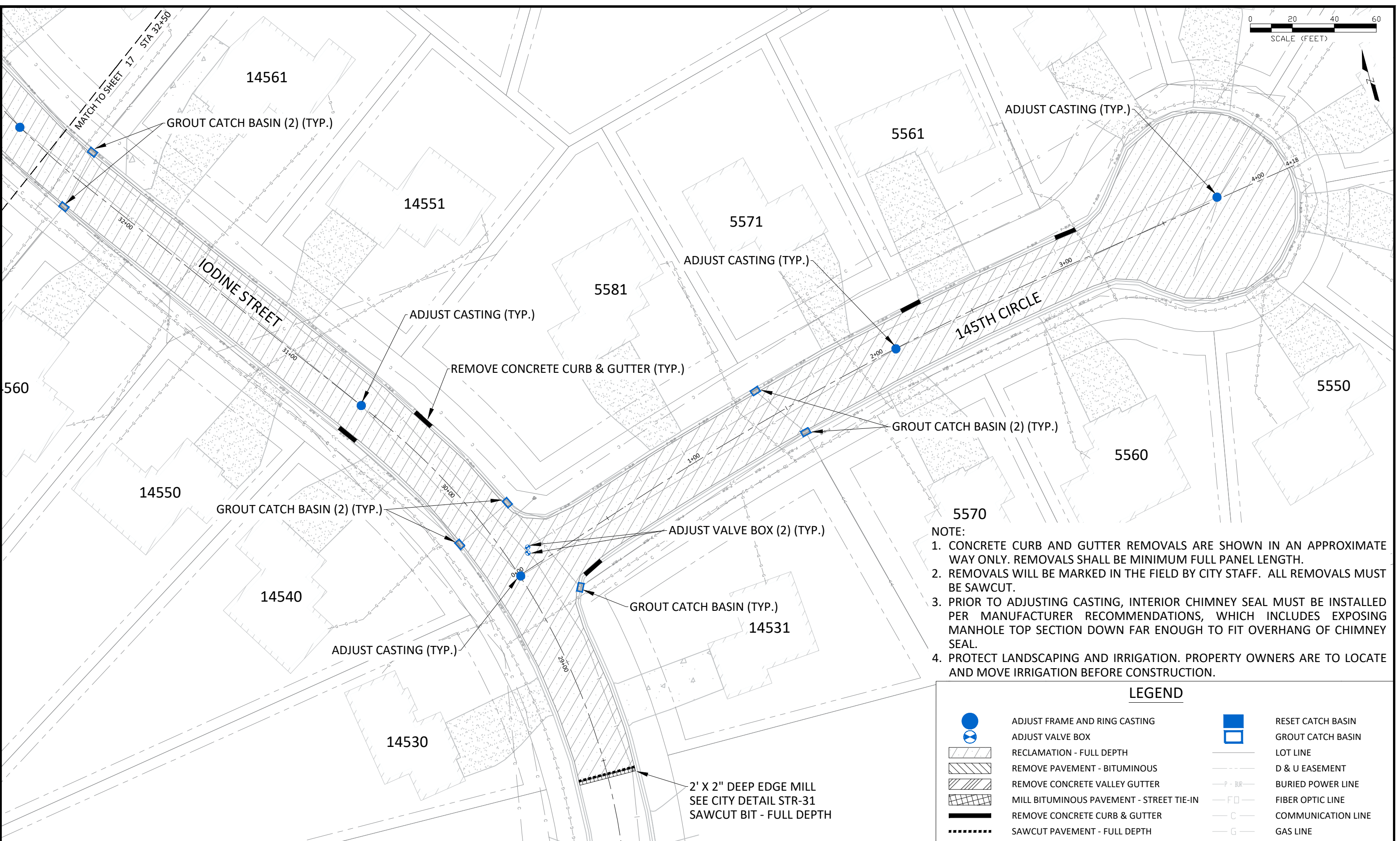
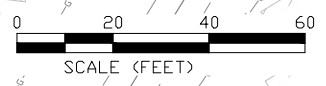
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2' X 2" DEEP EDGE MILL  
SEE CITY DETAIL STR-31  
SAWCUT BIT - FULL DEPTH

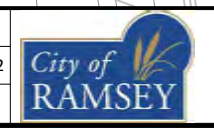
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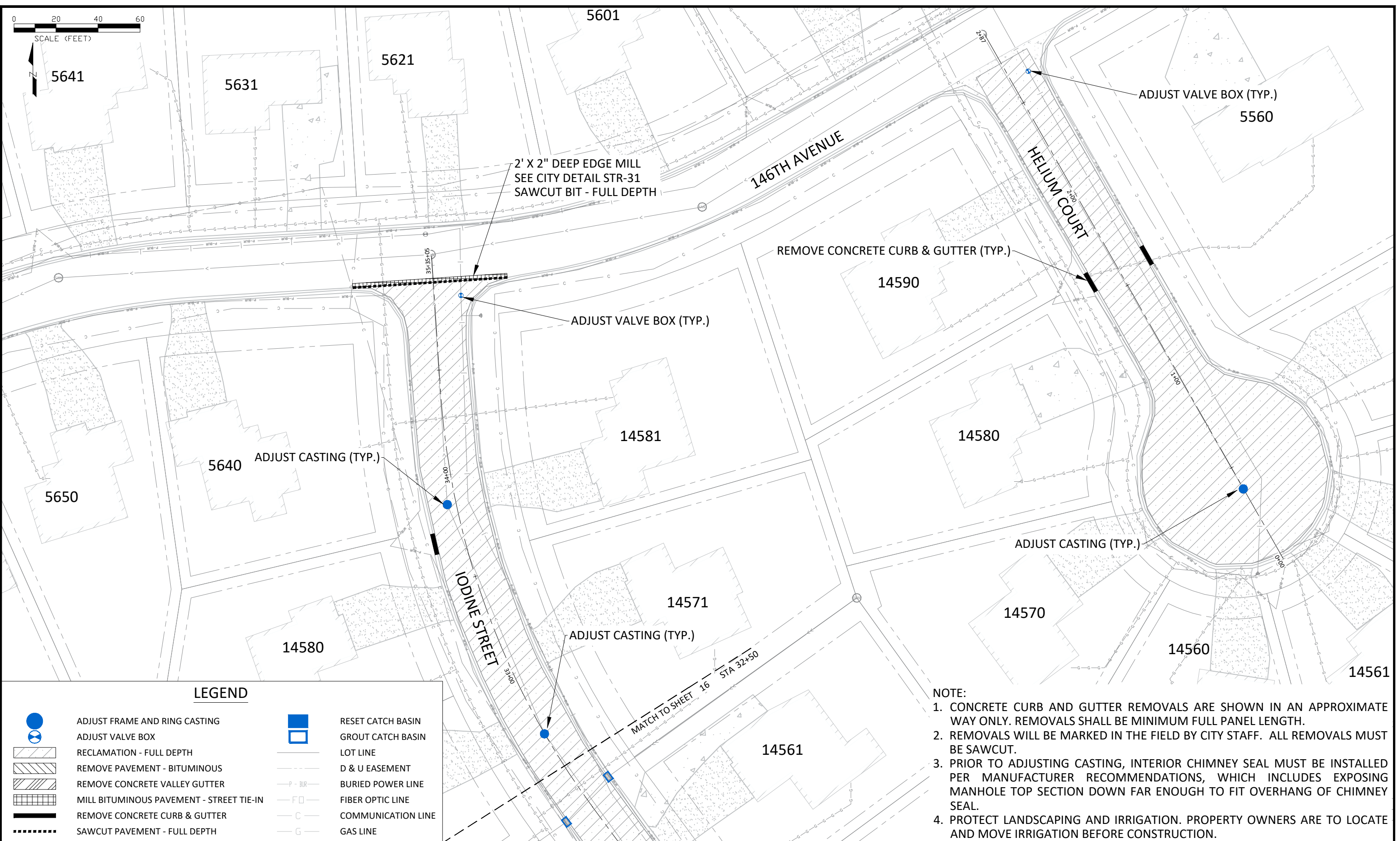
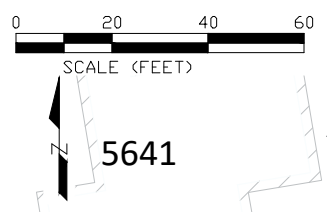
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**LEGEND**

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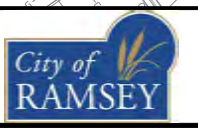
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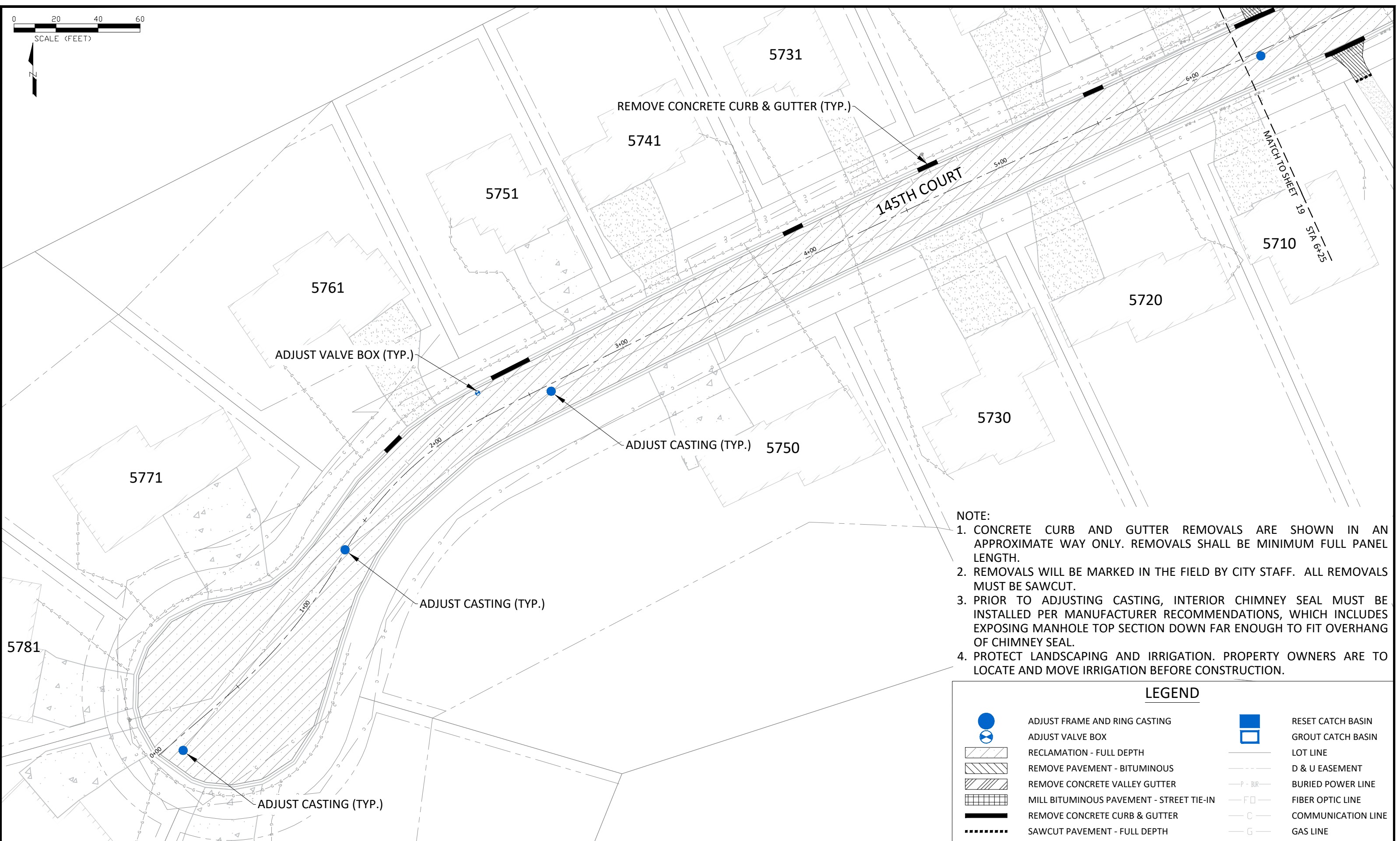
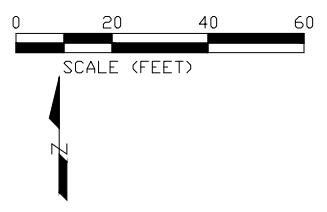
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CITY OF RAMSEY  
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EXISTING CONDITIONS & REMOVALS

WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS  
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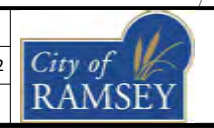
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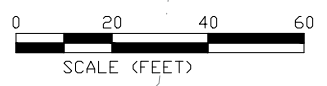
DESIGNED BY:	JJF
DRAWN BY:	JJF
CHECKED BY:	JJF
DATE:	2/28/22
FILE:	22-06



CITY OF RAMSEY  
 7550 SUNWOOD DRIVE  
 RAMSEY, MN 55303  
 (763) 427-1410 FAX (763) 433-9898

EXISTING CONDITIONS & REMOVALS

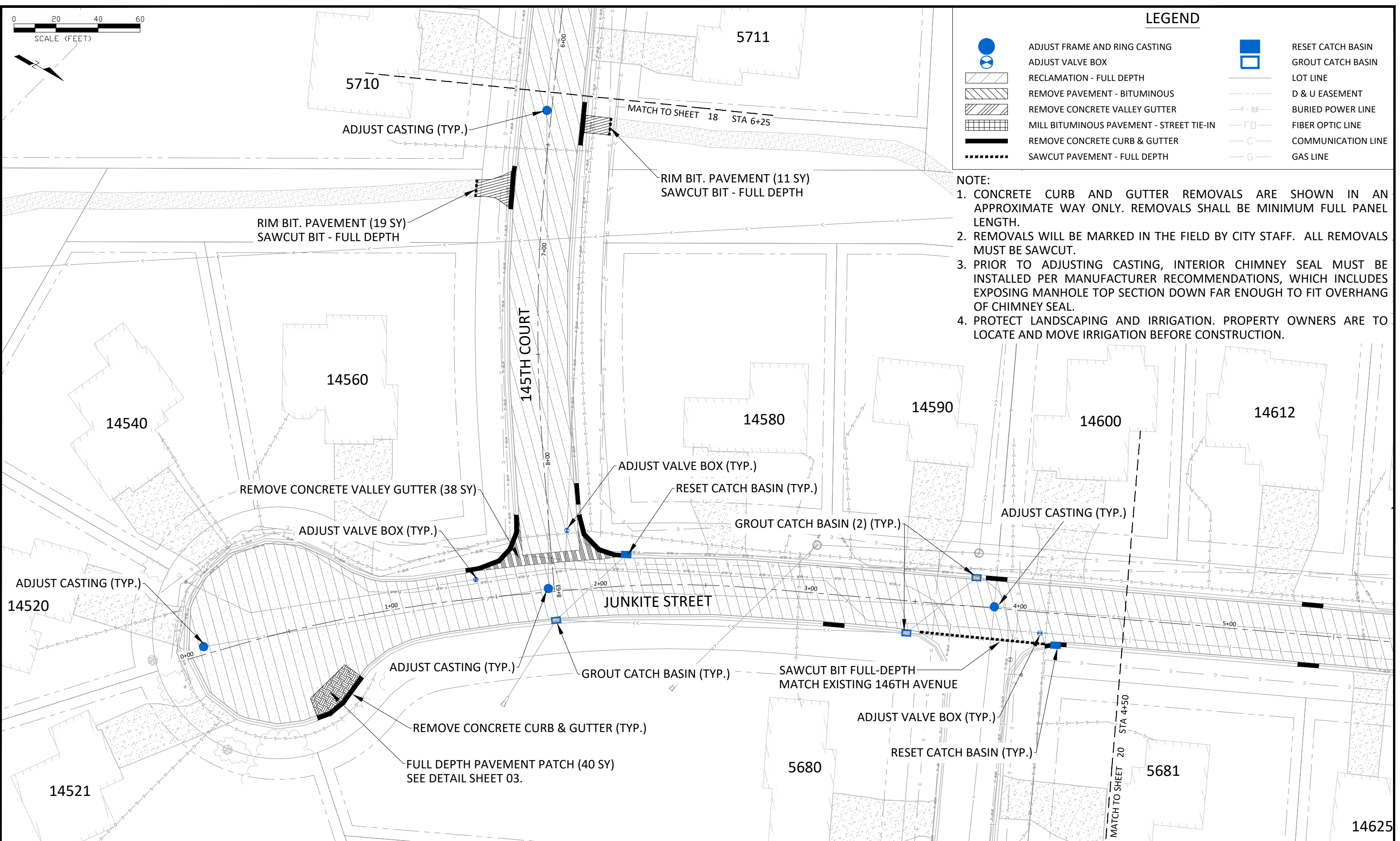
WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS  
 CITY PROJECT NO. 22-06  
 CITY OF RAMSEY, MINNESOTA



**LEGEND**

- ADJUST FRAME AND RING CASTING
- ADJUST VALVE BOX
- RECLAMATION - FULL DEPTH
- REMOVE PAVEMENT - BITUMINOUS
- REMOVE CONCRETE VALLEY GUTTER
- MILL BITUMINOUS PAVEMENT - STREET TIE-IN
- REMOVE CONCRETE CURB & GUTTER
- SAWCUT PAVEMENT - FULL DEPTH
- RESET CATCH BASIN
- GROUT CATCH BASIN
- LOT LINE
- D & U EASEMENT
- BURIED POWER LINE
- FIBER OPTIC LINE
- COMMUNICATION LINE
- GAS LINE

- NOTE:**
1. CONCRETE CURB AND GUTTER REMOVALS ARE SHOWN IN AN APPROXIMATE WAY ONLY. REMOVALS SHALL BE MINIMUM FULL PANEL LENGTH.
  2. REMOVALS WILL BE MARKED IN THE FIELD BY CITY STAFF. ALL REMOVALS MUST BE SAWCUT.
  3. PRIOR TO ADJUSTING CASTING, INTERIOR CHIMNEY SEAL MUST BE INSTALLED PER MANUFACTURER RECOMMENDATIONS, WHICH INCLUDES EXPOSING MANHOLE TOP SECTION DOWN FAR ENOUGH TO FIT OVERHANG OF CHIMNEY SEAL.
  4. PROTECT LANDSCAPING AND IRRIGATION. PROPERTY OWNERS ARE TO LOCATE AND MOVE IRRIGATION BEFORE CONSTRUCTION.

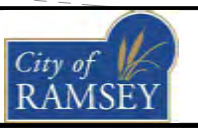


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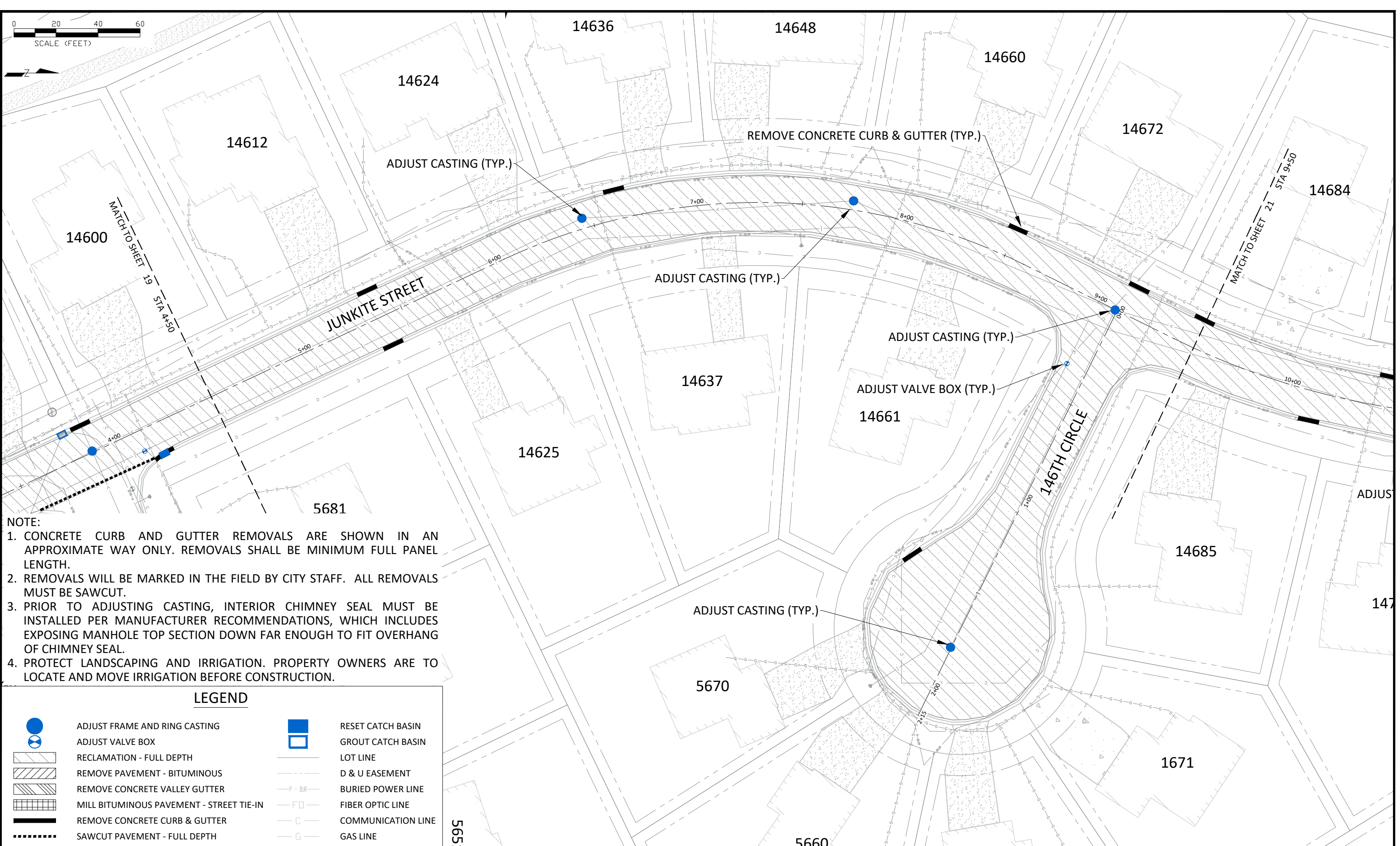
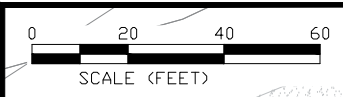
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CITY OF RAMSEY  
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**EXISTING CONDITIONS & REMOVALS**

**WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS**  
 CITY PROJECT NO. 22-06  
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**LEGEND**

	ADJUST FRAME AND RING CASTING		RESET CATCH BASIN
	ADJUST VALVE BOX		GROUT CATCH BASIN
	RECLAMATION - FULL DEPTH		LOT LINE
	REMOVE PAVEMENT - BITUMINOUS		D & U EASEMENT
	REMOVE CONCRETE VALLEY GUTTER		BURIED POWER LINE
	MILL BITUMINOUS PAVEMENT - STREET TIE-IN		FIBER OPTIC LINE
	REMOVE CONCRETE CURB & GUTTER		COMMUNICATION LINE
	SAWCUT PAVEMENT - FULL DEPTH		GAS LINE

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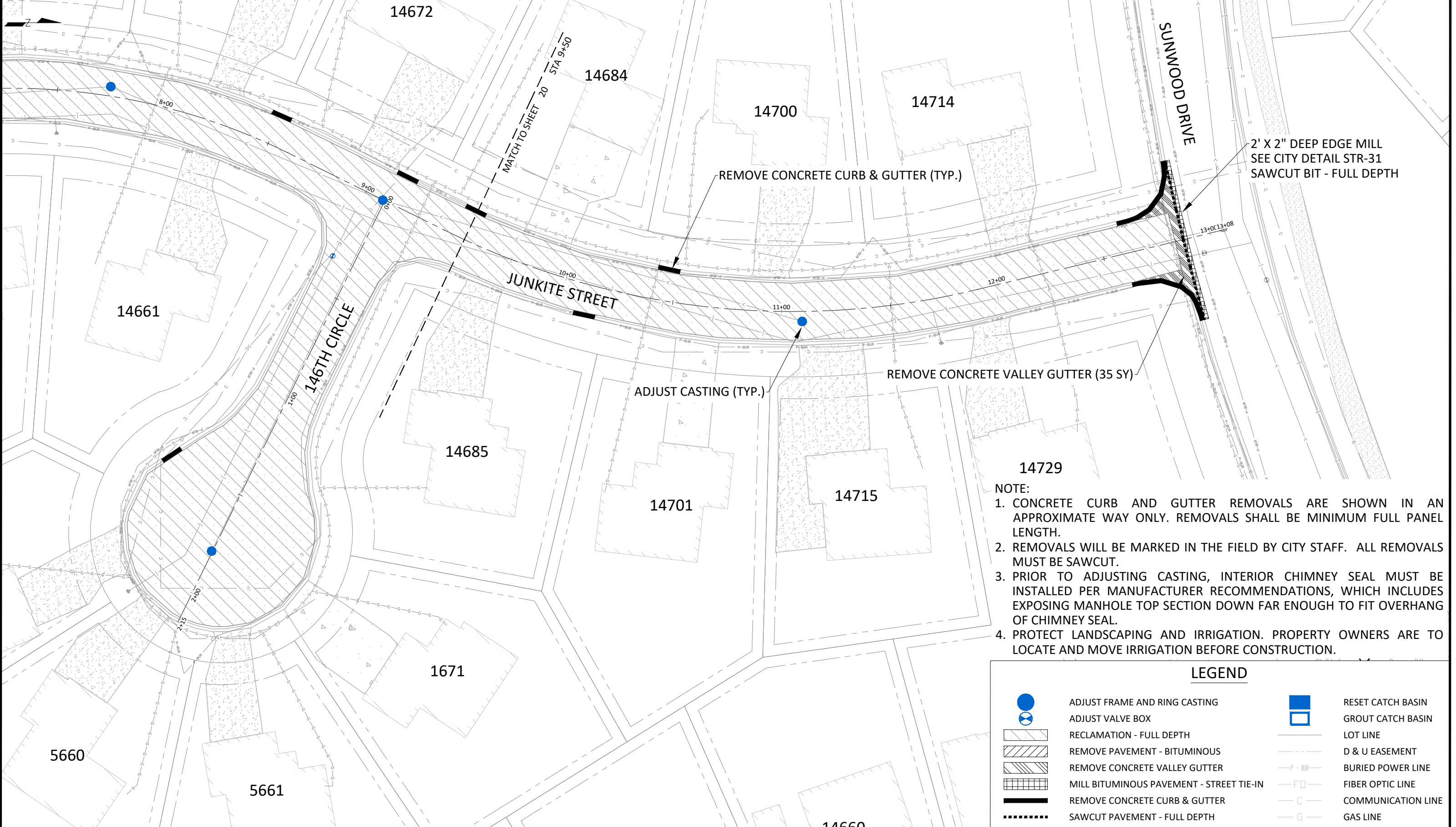
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2' X 2" DEEP EDGE MILL  
SEE CITY DETAIL STR-31  
SAWCUT BIT - FULL DEPTH

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	GAS LINE

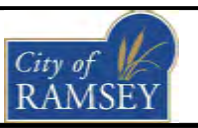
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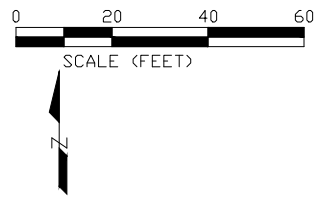
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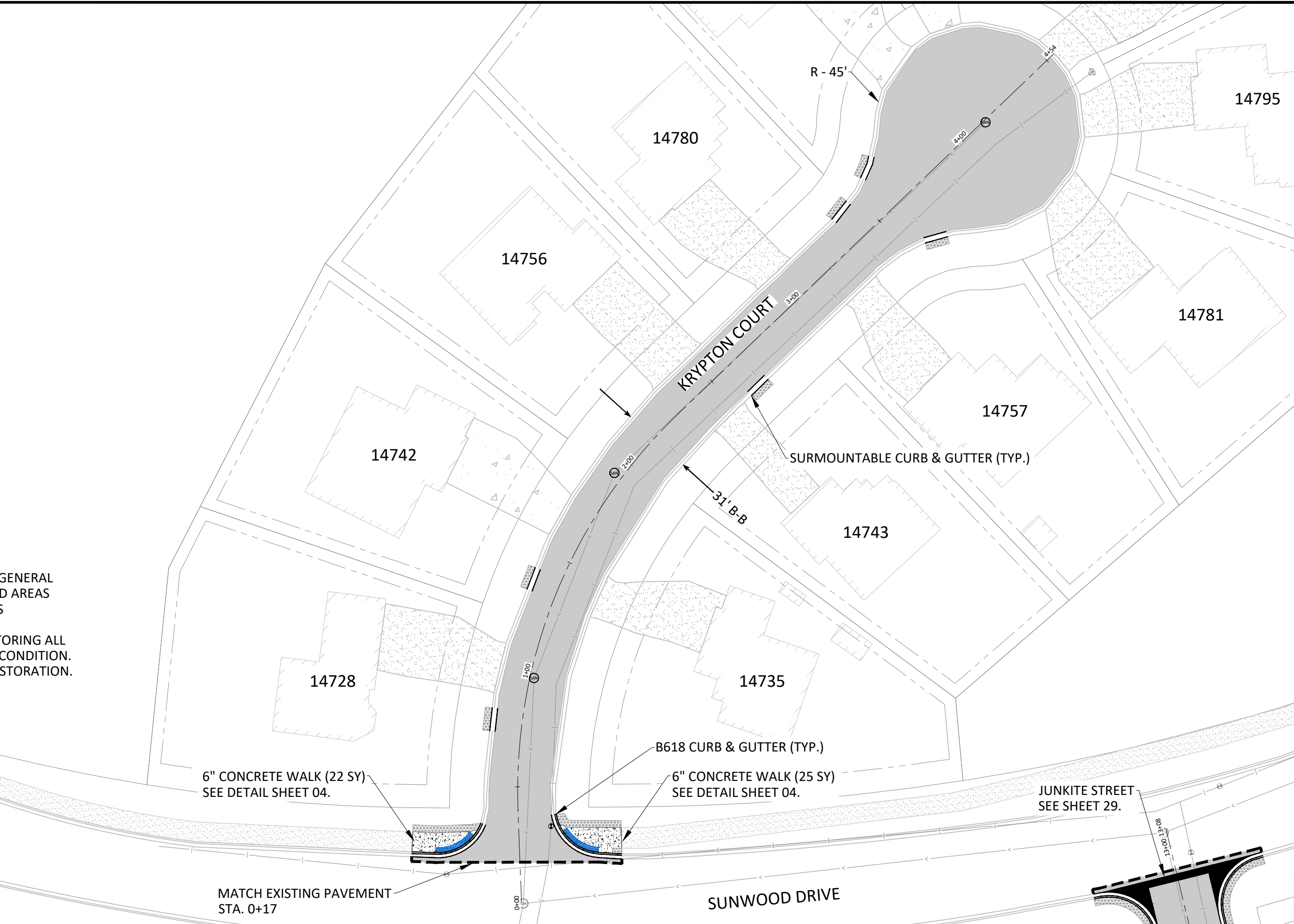
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 CITY PROJECT NO. 22-06  
 CITY OF RAMSEY, MINNESOTA



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LEGEND	
	RESET CATCH BASIN
	GROUT CATCH BASIN
	SANITARY SEWER MANHOLE
	WATERMAIN VALVE
	CONCRETE VALLEY GUTTER
	BITUMINOUS PAVEMENT
	SEEDING AREA
	STABILIZED EROSION CONTROL MAT
	B618 CONCRETE CURB & GUTTER
	SURMOUNTABLE CURB & GUTTER
	MATCHLINE - EXISTING PAVEMENT



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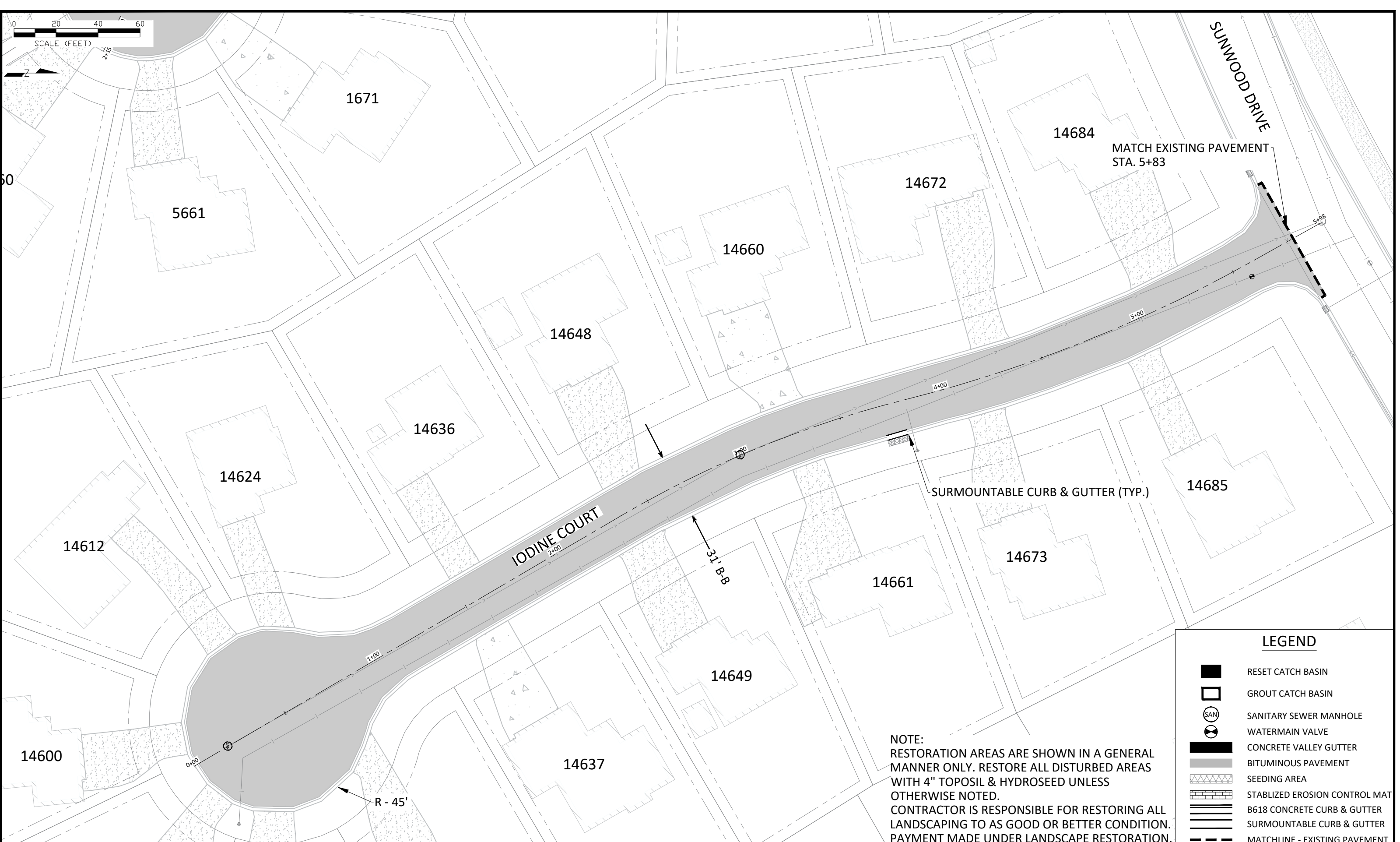
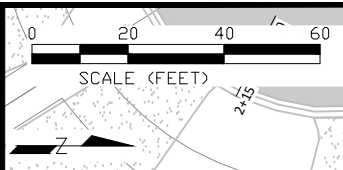
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STREET IMPROVEMENTS

WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS  
 CITY PROJECT NO. 22-06  
 CITY OF RAMSEY, MINNESOTA



1671

5661

14684

14672

14660

MATCH EXISTING PAVEMENT  
STA. 5+83

14648

14636

14624

SURMOUNTABLE CURB & GUTTER (TYP.)

14685

14612

IODINE COURT

14673

14661

14649

14600

14637

R - 45'

31' B-B

**LEGEND**

- RESET CATCH BASIN
- GROUT CATCH BASIN
- SANITARY SEWER MANHOLE
- WATERMAIN VALVE
- CONCRETE VALLEY GUTTER
- BITUMINOUS PAVEMENT
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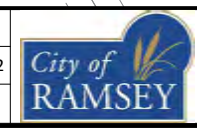
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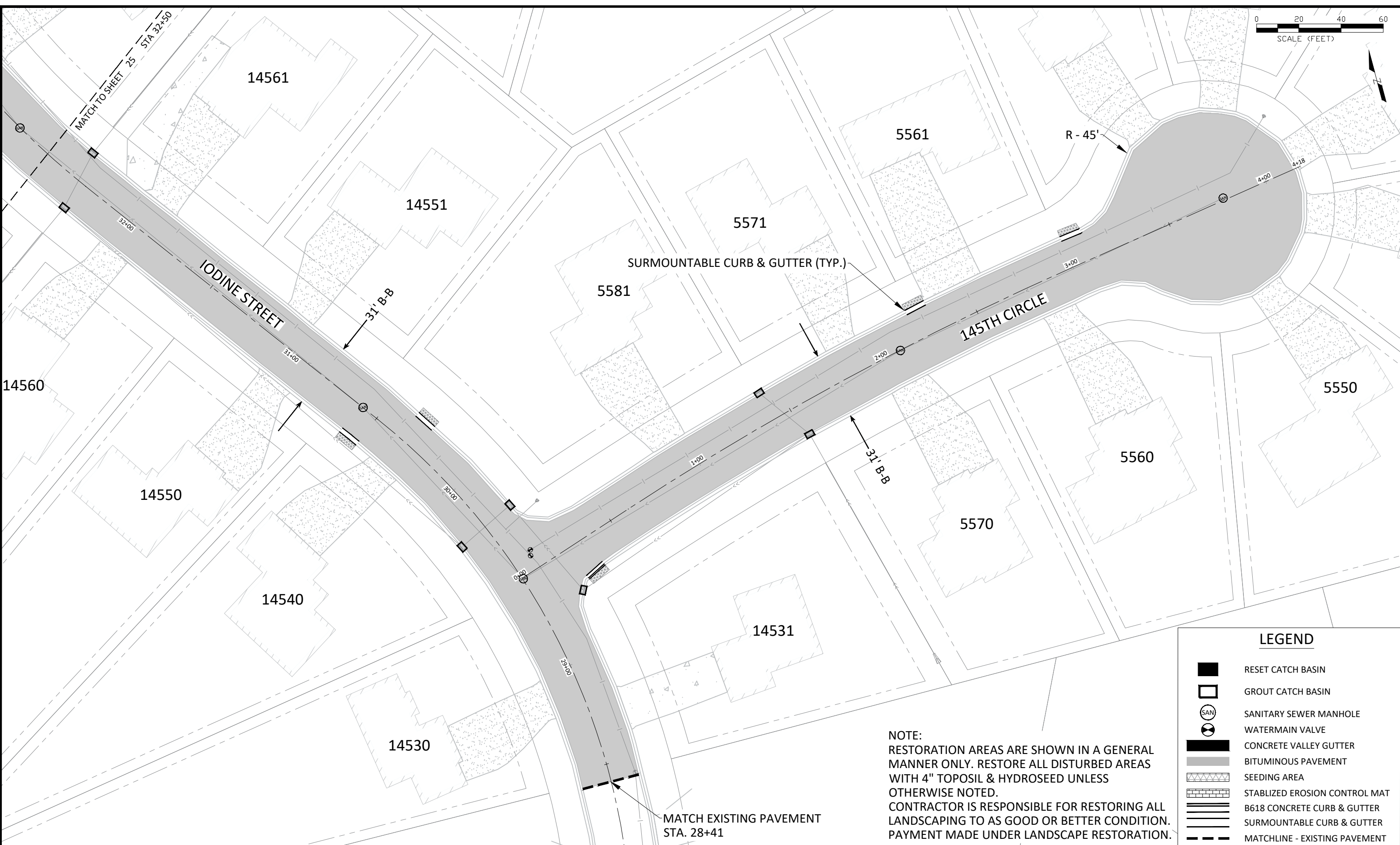
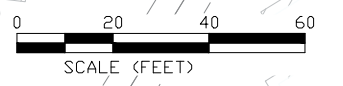
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**LEGEND**

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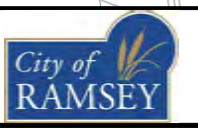
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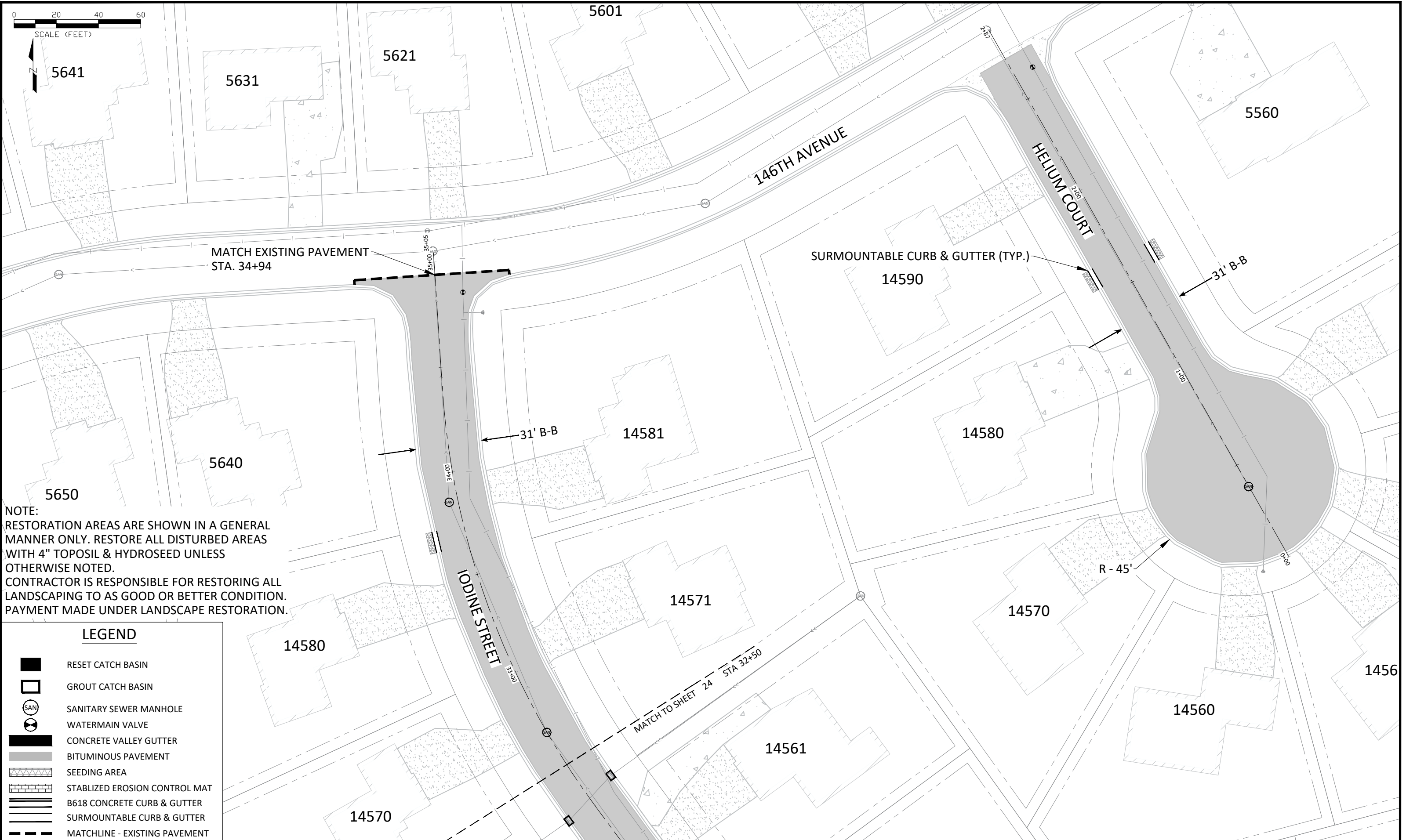
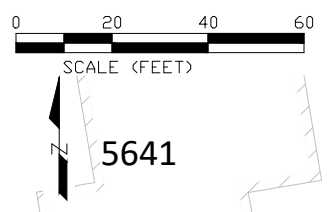
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 CITY OF RAMSEY, MINNESOTA



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	GROUT CATCH BASIN
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	WATERMAIN VALVE
	CONCRETE VALLEY GUTTER
	BITUMINOUS PAVEMENT
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	STABLIZED EROSION CONTROL MAT
	B618 CONCRETE CURB & GUTTER
	SURMOUNTABLE CURB & GUTTER
	MATCHLINE - EXISTING PAVEMENT

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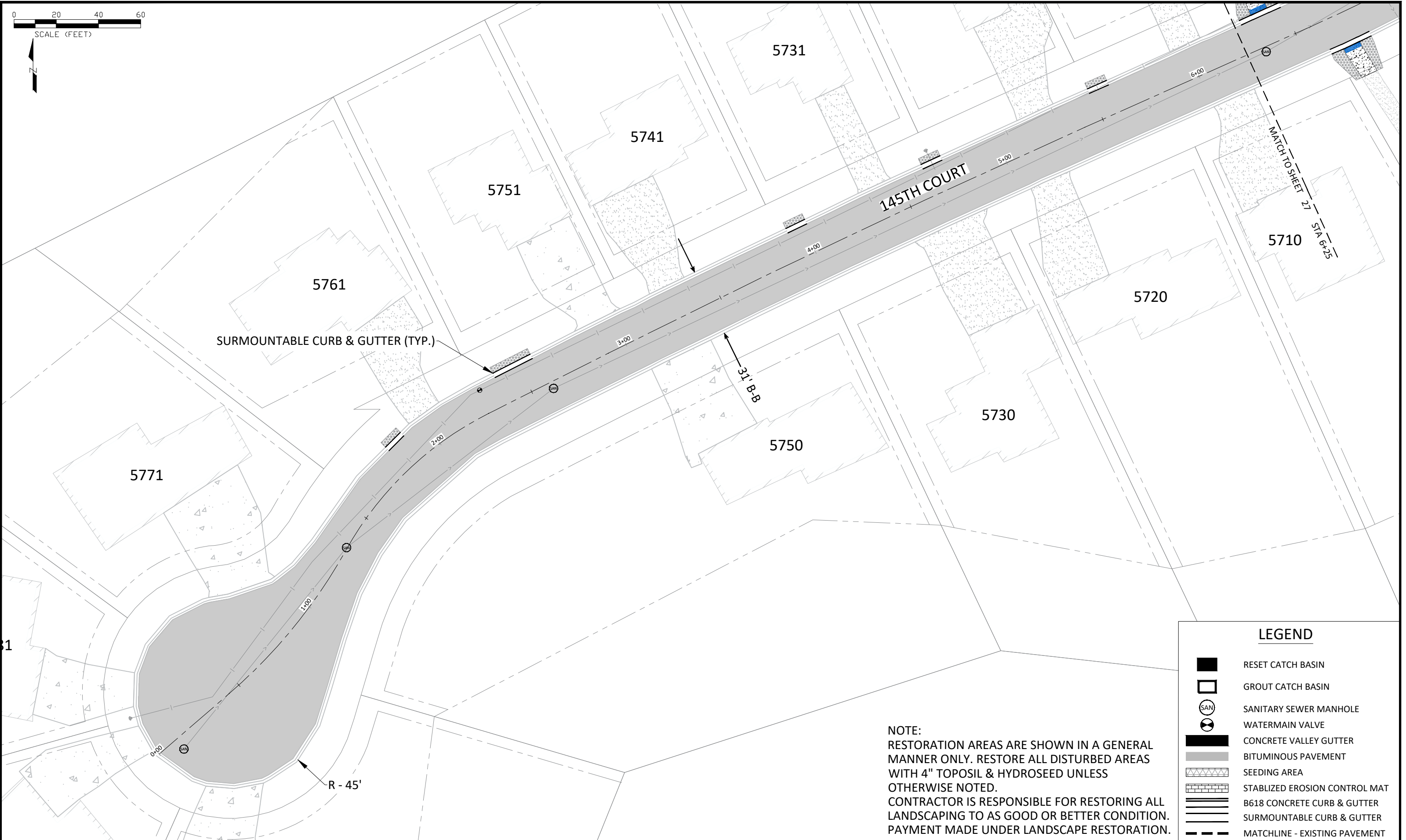
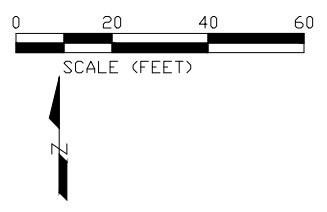
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SURMOUNTABLE CURB & GUTTER (TYP.)

R - 45'

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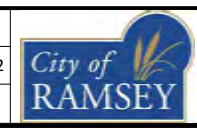
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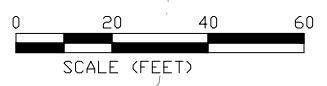
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





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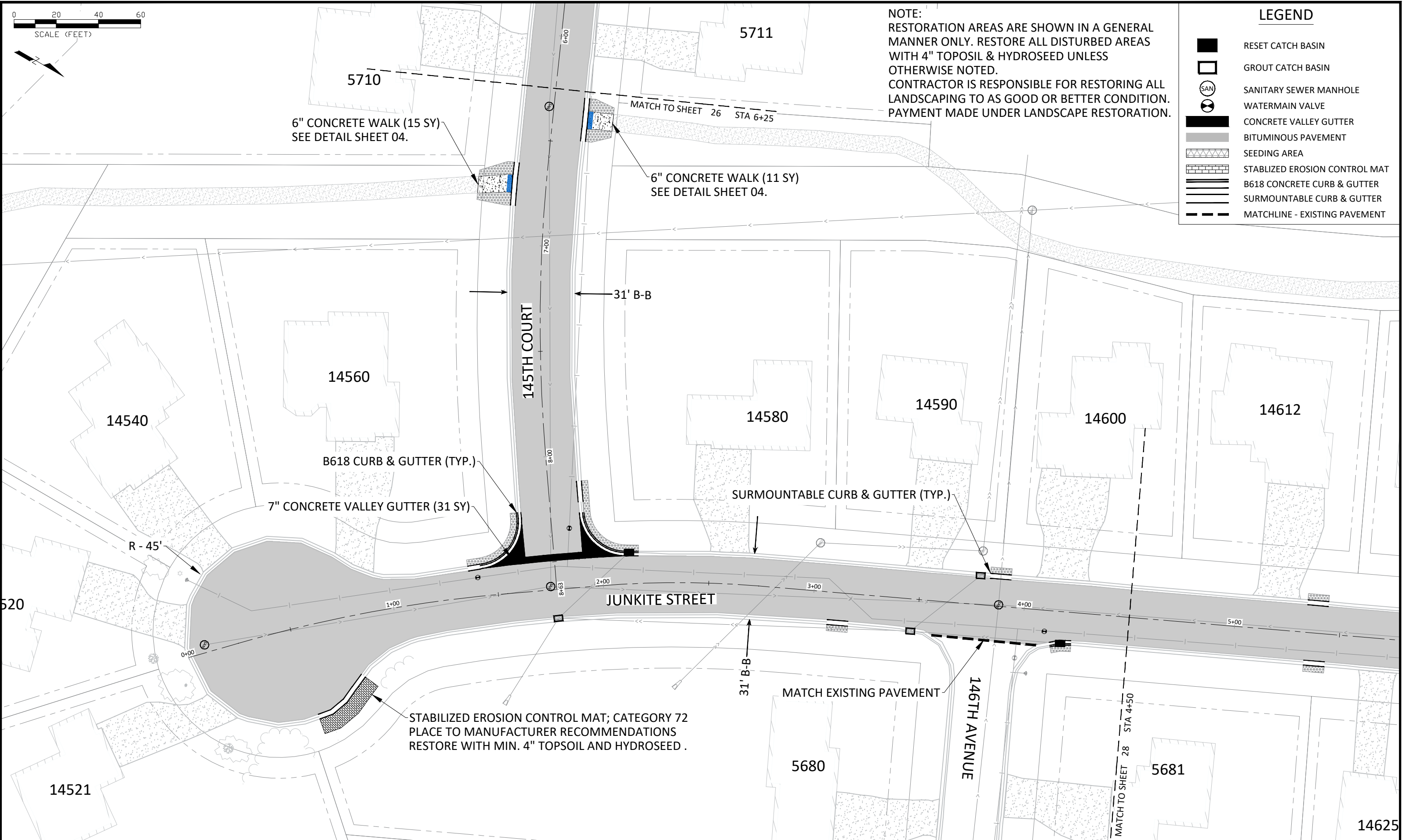
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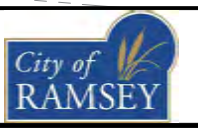
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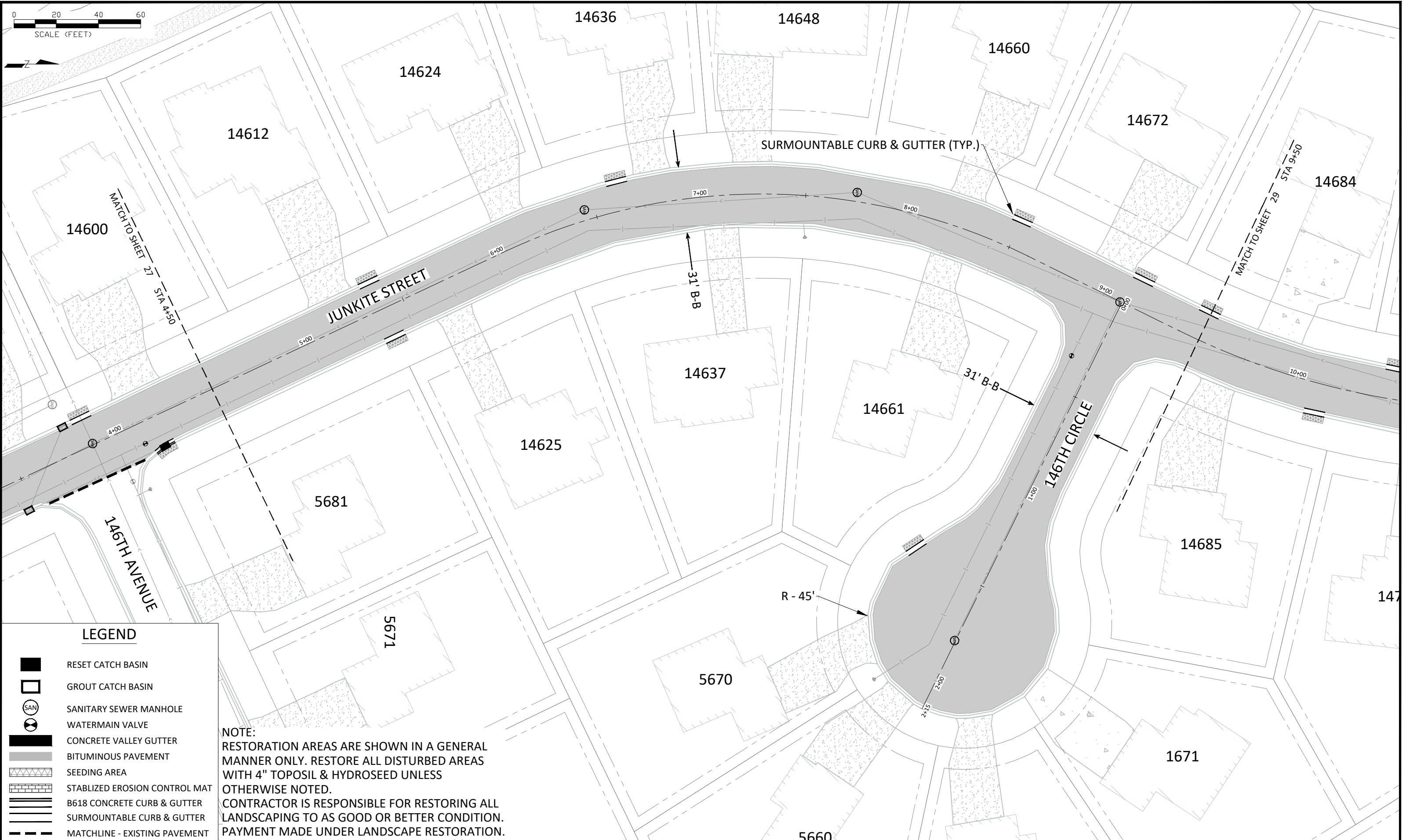
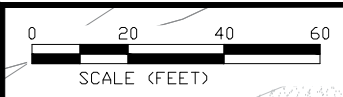
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




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CITY PROJECT NO. 22-06  
CITY OF RAMSEY, MINNESOTA



**LEGEND**

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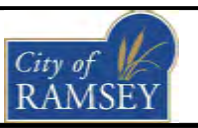
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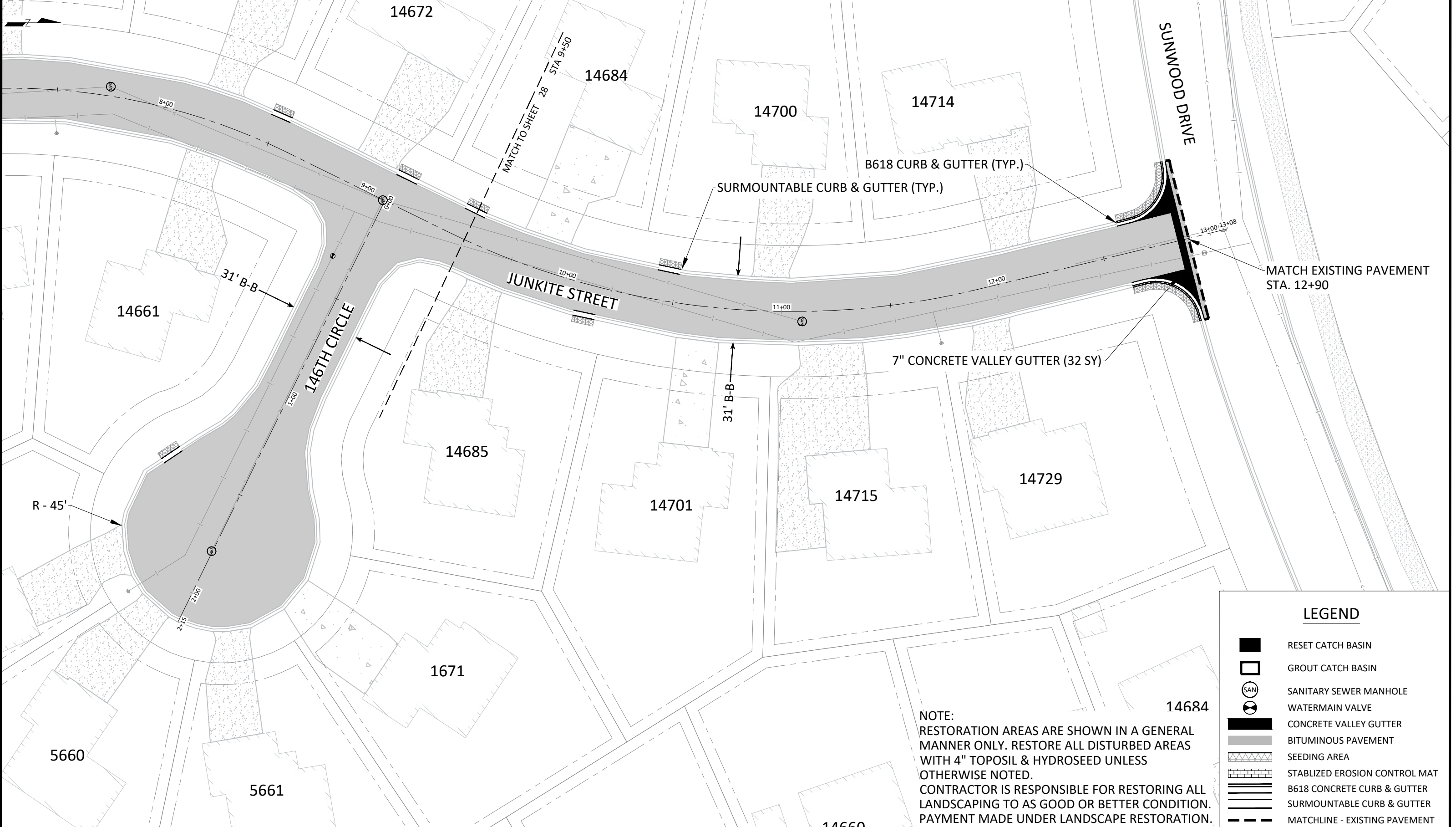
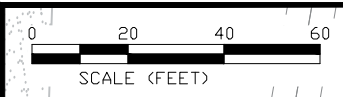
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WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS  
CITY PROJECT NO. 22-06  
CITY OF RAMSEY, MINNESOTA



**NOTE:**  
 RESTORATION AREAS ARE SHOWN IN A GENERAL MANNER ONLY. RESTORE ALL DISTURBED AREAS WITH 4" TOPOSIL & HYDROSEED UNLESS OTHERWISE NOTED.  
 CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL LANDSCAPING TO AS GOOD OR BETTER CONDITION.  
 PAYMENT MADE UNDER LANDSCAPE RESTORATION.

LEGEND	
	RESET CATCH BASIN
	GROUT CATCH BASIN
	SANITARY SEWER MANHOLE
	WATERMAIN VALVE
	CONCRETE VALLEY GUTTER
	BITUMINOUS PAVEMENT
	SEEDING AREA
	STABILIZED EROSION CONTROL MAT
	B618 CONCRETE CURB & GUTTER
	SURMOUNTABLE CURB & GUTTER
	MATCHLINE - EXISTING PAVEMENT

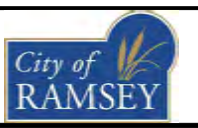
DATE	REVISION

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.

*Joe Periancek*  
 JOE PERIANCEK  
 Date 2/28/22 Lic. No. 57095

DESIGNED BY: JJF  
 DRAWN BY: JJF  
 CHECKED BY: JJF

DATE: 2/28/22  
 FILE: 22-06



CITY OF RAMSEY  
 7550 SUNWOOD DRIVE  
 RAMSEY, MN 55303  
 (763) 427-1410 FAX (763) 433-9898

STREET IMPROVEMENTS

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