

LEGEND

	PROPERTY LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED RIDGE LINE
	PROPOSED SWALE
	PROPOSED STORM MANHOLE (SOLID CASTING)
	PROPOSED STORM MANHOLE (ROUND INLET CASTING)
	PROPOSED STORM MANHOLE/ CATCH BASIN (CURB INLET CASTING)
	PROPOSED STORM SEWER CLEANOUT
	PROPOSED FLARED END SECTION
	PROPOSED RIPRAP
	PROPOSED STORM SEWER
	PROPOSED SPOT ELEVATION
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	PROPOSED GUTTER ELEVATION
	PROPOSED TOP OF CURB ELEVATION
	PROPOSED FLUSH PAVEMENT ELEVATION
	MATCH EXISTING ELEVATION
	PROPOSED EMERGENCY OVERFLOW ELEVATION
	PROPOSED TOP/BOTTOM OF WALL ELEVATION
	PROPOSED DRAINAGE DIRECTION
	PROPOSED ADA SLOPE

- GRADING PLAN NOTES**
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF RAMSEY, SPECIFICATIONS AND BUILDING PERMIT REQUIREMENTS.
 - CONTRACTOR TO CALL GOPHER STATE CALL ONE @ 1-800-252-1166 AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION/CONSTRUCTION FOR UTILITY LOCATIONS.
 - STORM SEWER PIPE SHALL BE AS FOLLOWS:
RCP PER ASTM C-76
HDPE: 12" PER AASHTO M-252
HDPE: 12" OR GREATER PER ASTM F-2306
PVC SCH. 40 PER ASTM D-1785
STORM SEWER FITTINGS SHALL BE AS FOLLOWS:
RCP PER ASTM C-76, JOINTS PER ASTM C-361, C-990, AND C-443
HDPE PER ASTM D-312
PVC PER ASTM D-3034, JOINTS PER ASTM D-3212
 - CONTRACTOR TO FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO THE START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
 - SUBGRADE EXCAVATION SHALL BE BACKFILLED IMMEDIATELY AFTER EXCAVATION TO HELP OFFSET ANY STABILITY PROBLEMS DUE TO WATER SEEPAGE OR STEEP SLOPES WHEN PLACING NEW SURFACE MATERIAL ADJACENT TO EXISTING PAVEMENT. THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING OF EXISTING PAVEMENT.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL.
 - CONTRACTOR SHALL EXCAVATE DRAINAGE TRENCHES TO FOLLOW PROPOSED STORM SEWER ALIGNMENTS.
 - GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL ROUGH GRADE TO SUBGRADE ELEVATION AND LEAVE STREET READY FOR SUBBASE.
 - ALL EXCESS MATERIAL, BITUMINOUS SURFACING, CONCRETE ITEMS, ANY ABANDONED UTILITY ITEMS, AND OTHER UNSTABLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE CONSTRUCTION SITE.
 - REFER TO THE UTILITY PLAN FOR SANITARY SEWER MAIN, WATER MAIN SERVICE LAYOUT AND ELEVATIONS AND CASTING / STRUCTURE NOTATION.
 - CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF PAVEMENTS AND CURB AND GUTTER WITH SMOOTH UNIFORM SLOPES TO PROVIDE POSITIVE DRAINAGE.
 - INSTALL A MINIMUM OF 4" CLASS 5 AGGREGATE BASE UNDER CURB AND GUTTER AND CONCRETE SIDEWALKS.
 - UPON COMPLETION OF EXCAVATION AND FILLING, CONTRACTOR SHALL RESTORE ALL STREETS AND DISTURBED AREAS ON SITE. ALL DISTURBED AREAS SHALL BE RE-VEGETATED WITH A MINIMUM OF 4" OF TOPSOIL.
 - ALL SPOT ELEVATIONS/CONTOURS ARE TO GUTTER / FLOW LINE UNLESS OTHERWISE NOTED.
 - GRADING FOR ALL SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS SHALL CONFORM TO CURRENT ADA STATEWIDE STANDARDS. IN NO CASE SHALL ACCESSIBLE RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2%. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 2%. IN NO CASE SHALL ACCESSIBLE PARKING STALLS OR AISLES EXCEED 2% (1.5% TARGET) IN ALL DIRECTIONS. SIDEWALK ACCESS TO EXTERNAL BUILDING DOORS AND GATES SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET IN ANY LOCATION PRIOR TO PAVING. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A.D.A COMPLIANCE ISSUES.
 - MAINTAIN A MINIMUM OF 0.5% GUTTER SLOPE TOWARDS LOW POINTS.
 - CONTRACTOR TO PROVIDE 3" INSULATION BY 5' WIDE CENTERED ON STORM PIPE IF LESS THAN 4" OF COVER IN PAVEMENT AREAS AND LESS THAN 3" OF COVER IN LANDSCAPE AREAS.
 - ROOF DRAIN INVERT CONNECTIONS AT THE BUILDING SHALL BE AT ELEVATION <XXXX> OR LOWER UNLESS NOTED OTHERWISE. REFERENCE MEP PLANS FOR ROOF DRAIN CONNECTION.
 - ALL STORM SEWER CONNECTIONS SHALL BE GASKETED AND WATER TIGHT INCLUDING MANHOLE CONNECTIONS.
 - ALL STORM SEWER PIPE SHALL BE AIR TESTED IN ACCORDANCE WITH THE CURRENT PLUMBING CODE.
 - MAINTAIN A MINIMUM OF 1.25% SLOPE IN BITUMINOUS PAVEMENT AREAS, 0.5% SLOPE IN CONCRETE PAVEMENT AREAS.
 - CONTRACTOR SHALL REVIEW PAVEMENT GRADIENT AND CONSTRUCT "INFALL CURB" WHERE PAVEMENT DRAINS TOWARD GUTTER, AND "OUTFALL" CURB WHERE PAVEMENT DRAINS AWAY FROM GUTTER.

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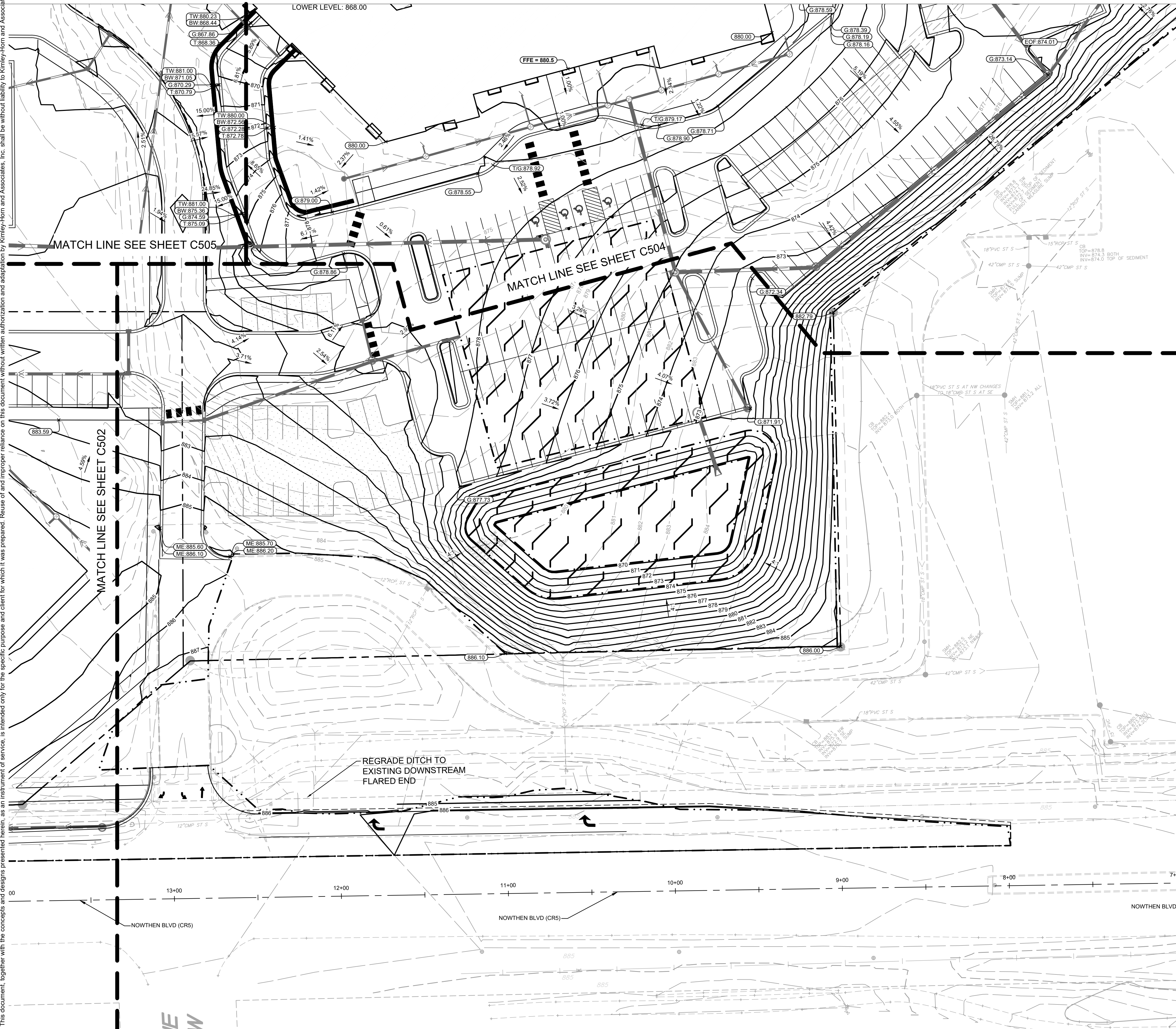
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GRADING PLAN

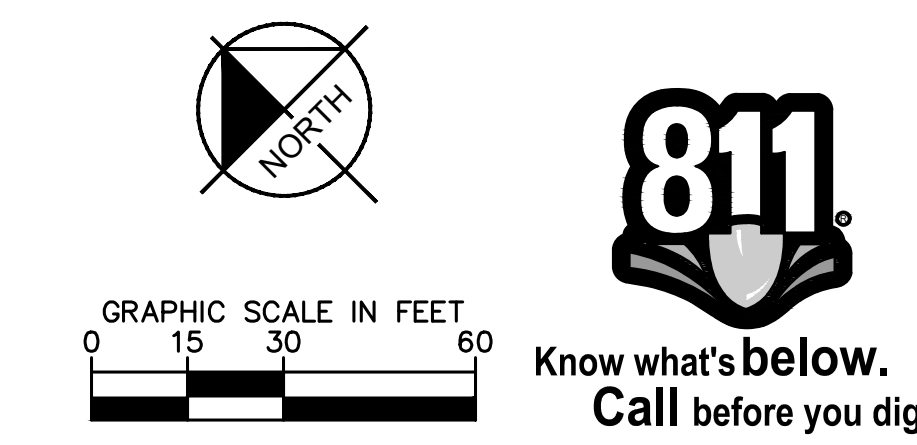
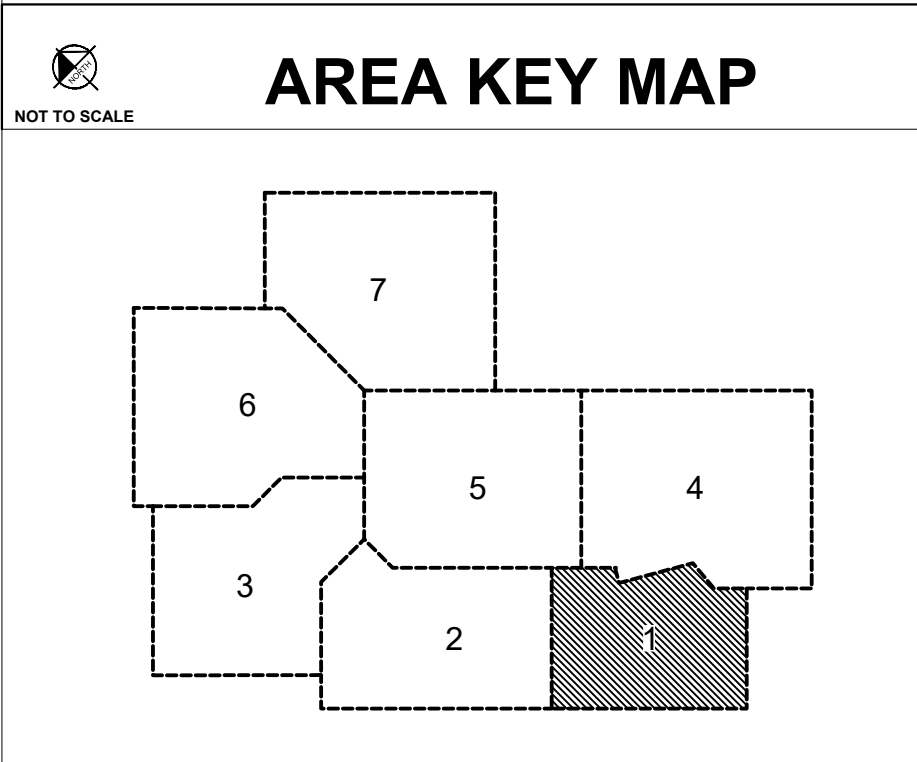
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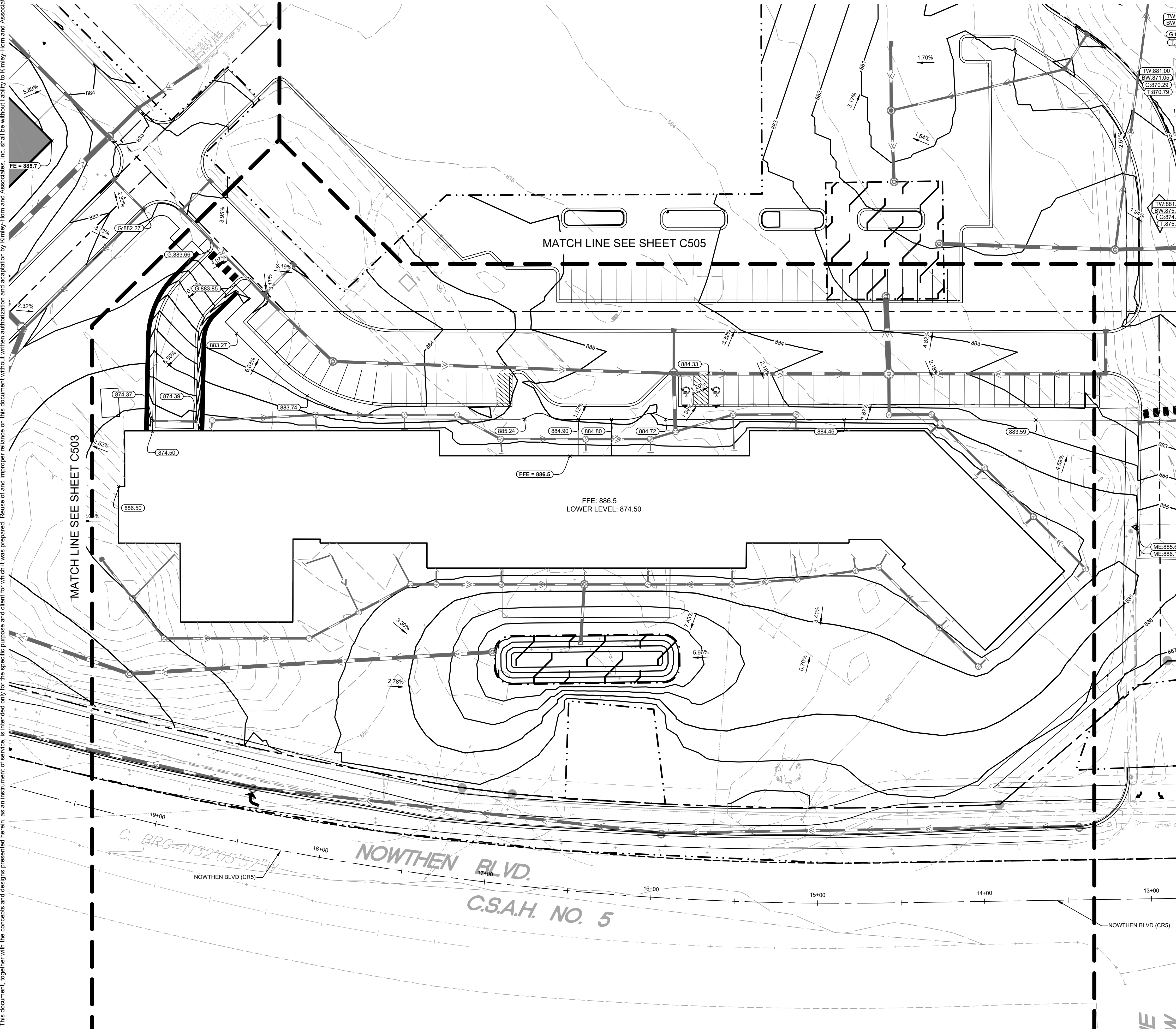
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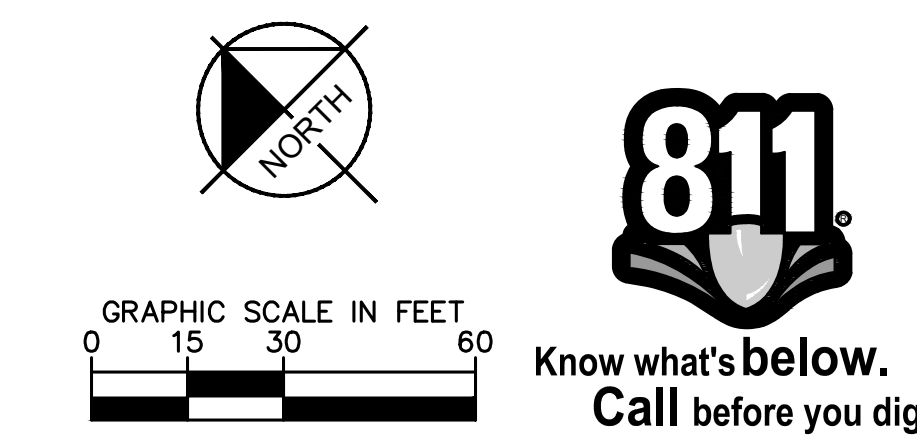
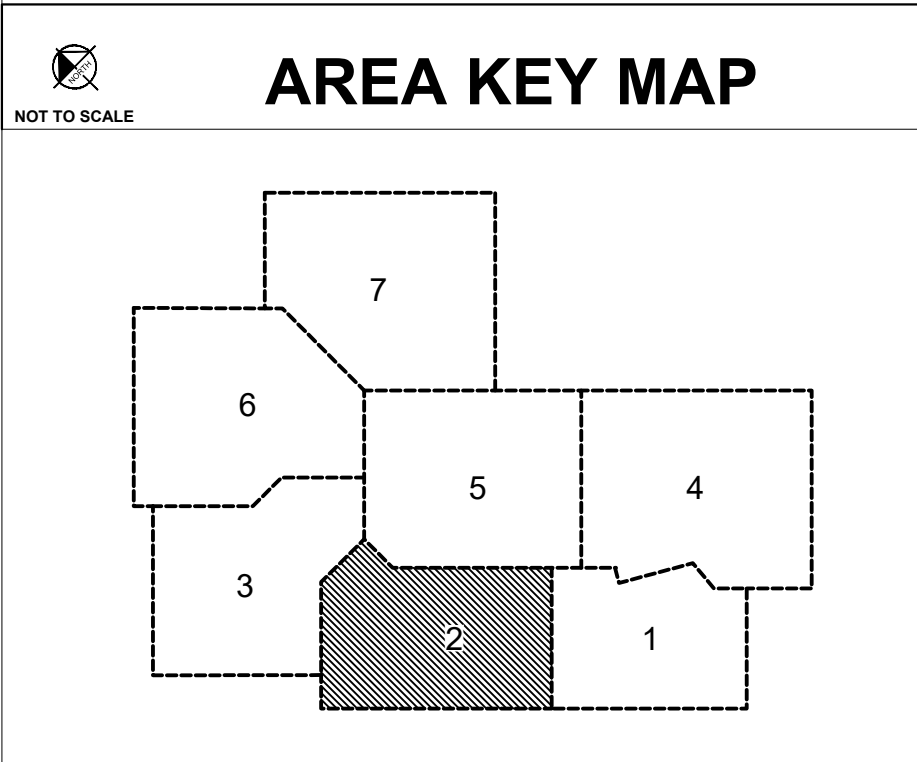
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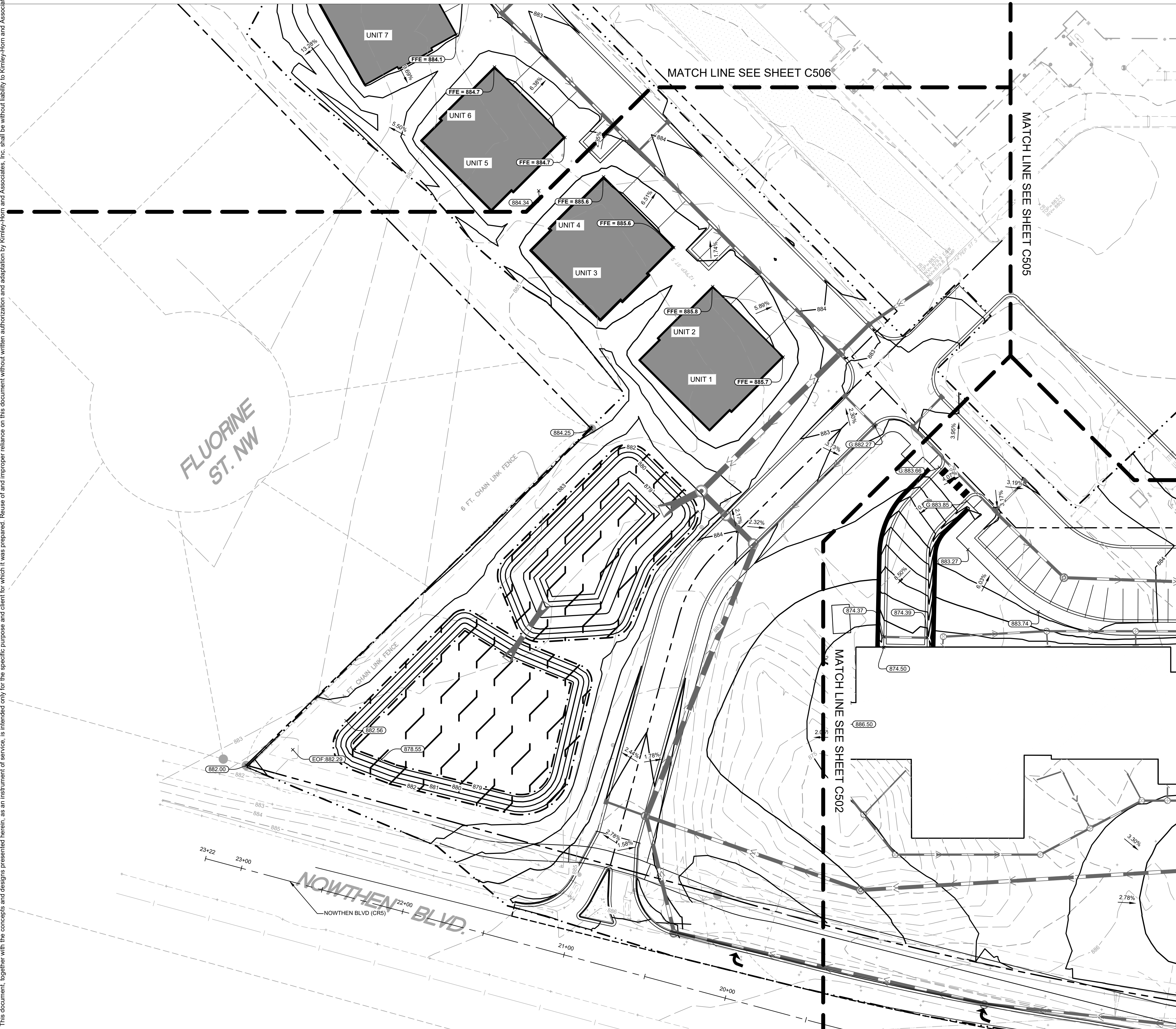
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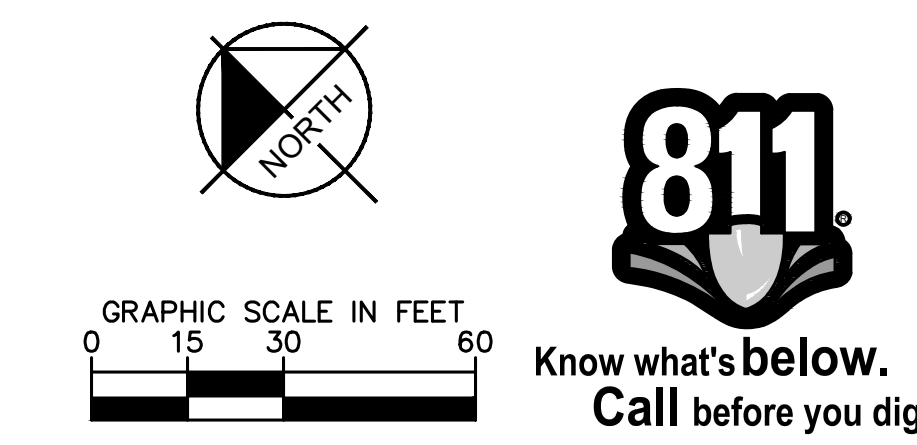
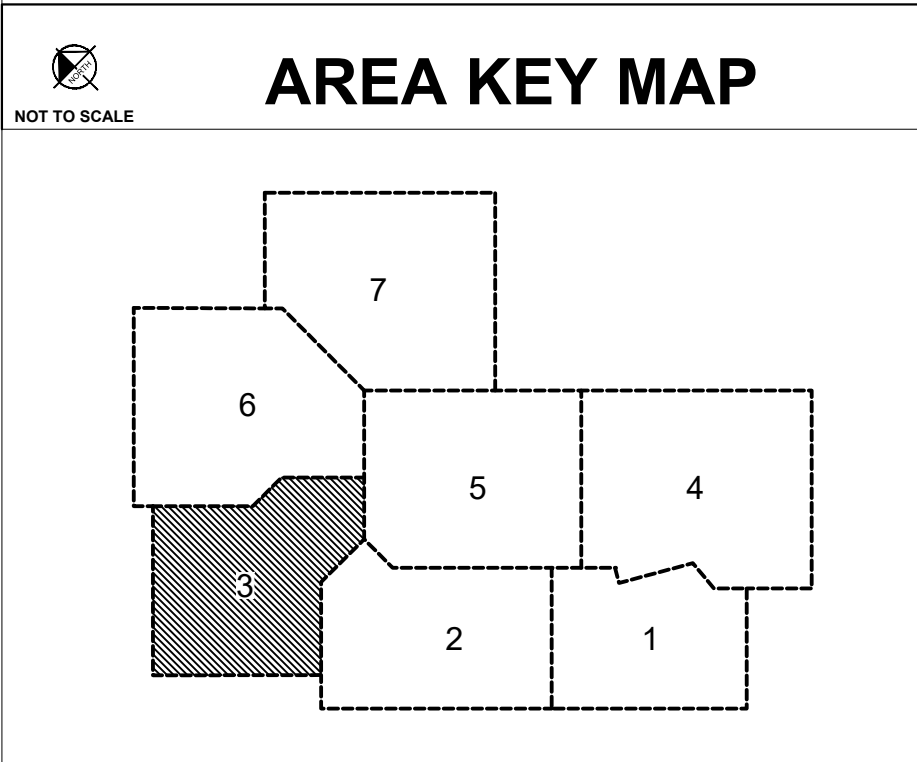


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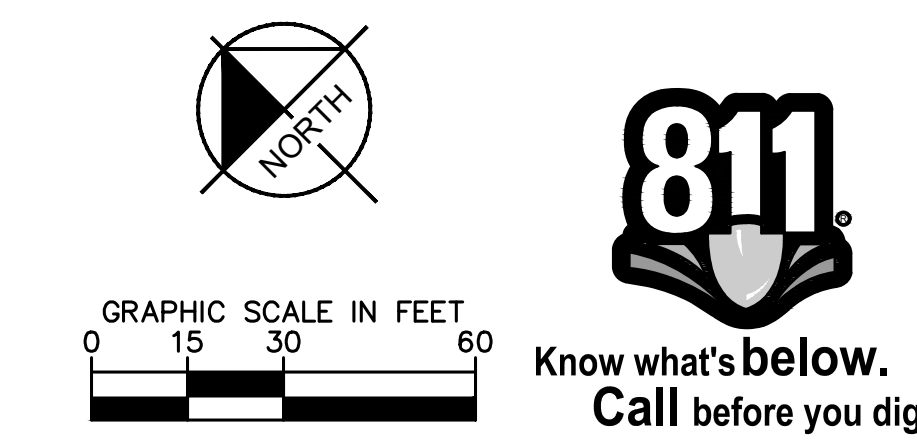
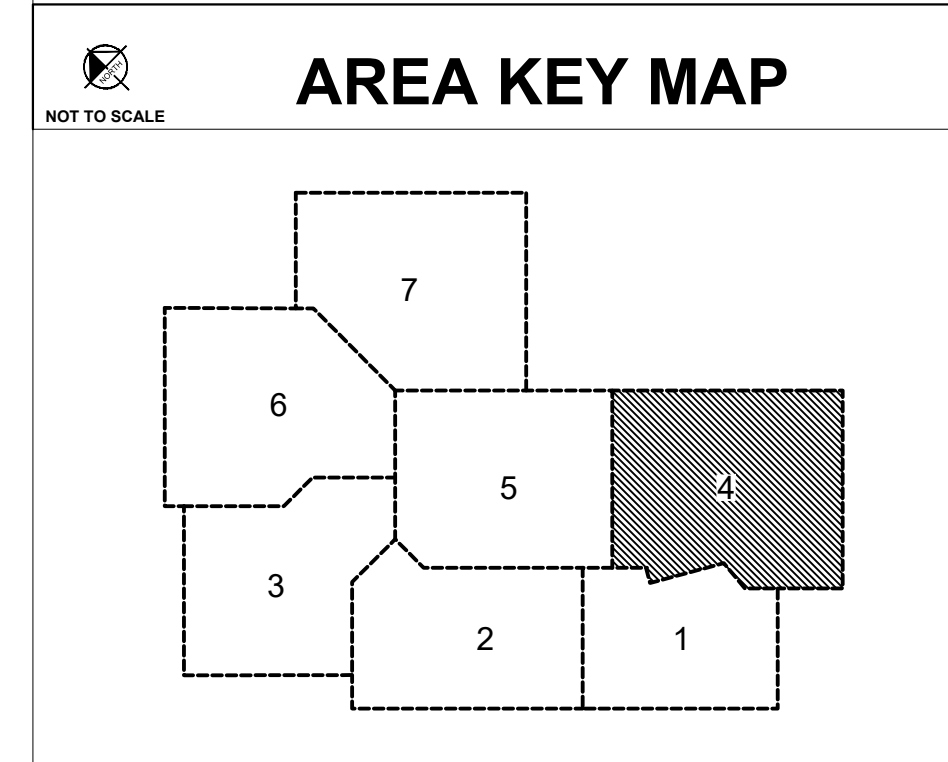
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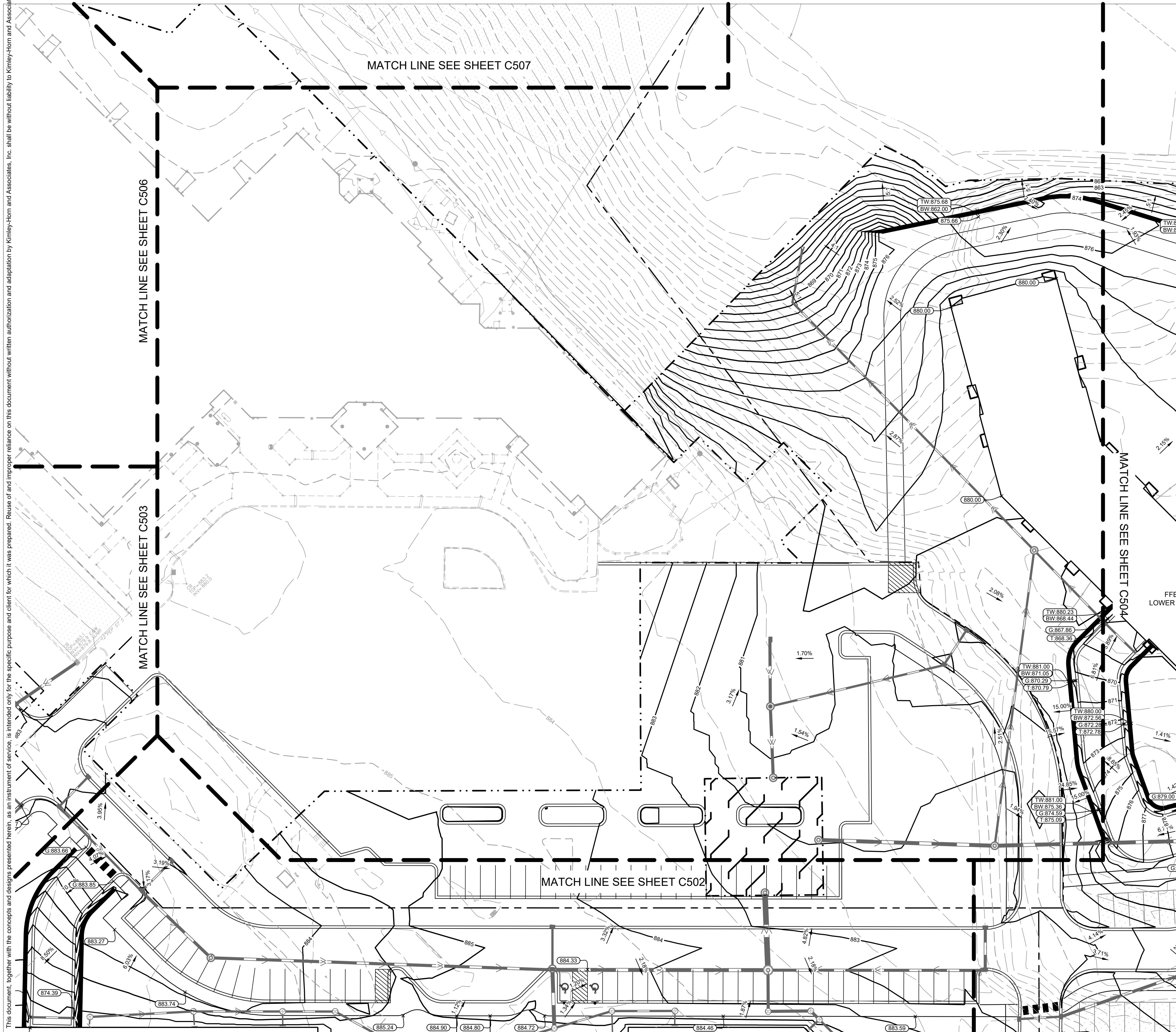
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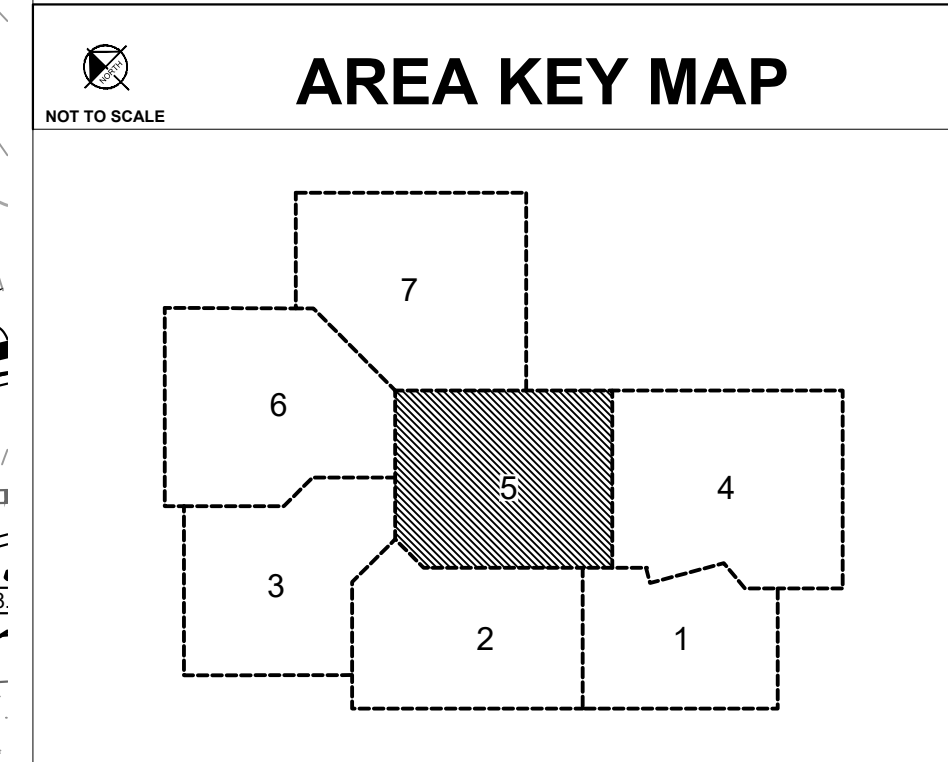
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NOT TO SCALE

GRAPHIC SCALE IN FEET
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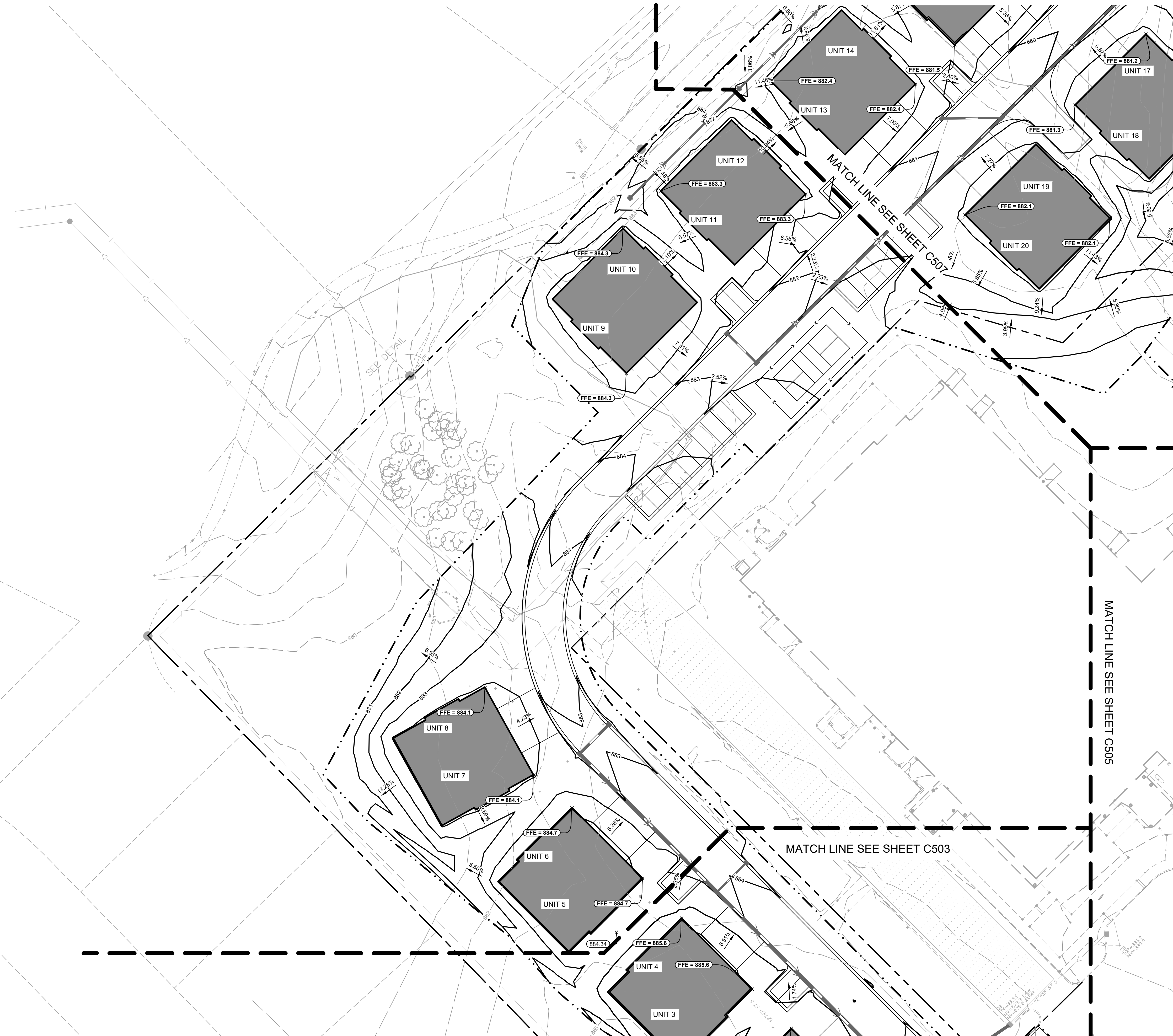
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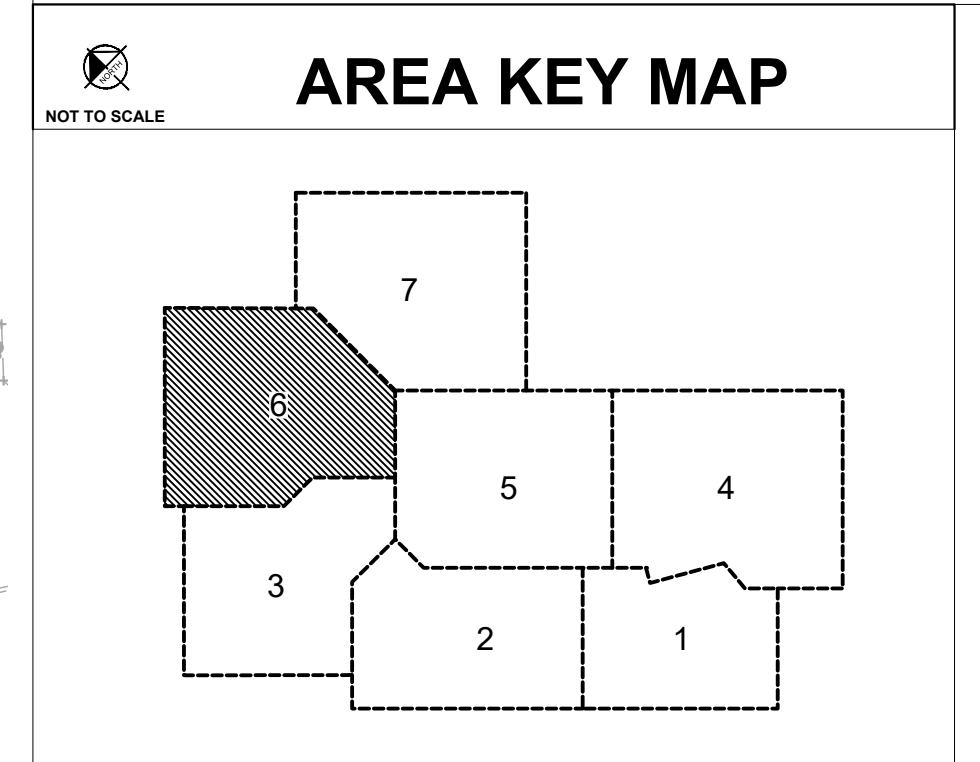
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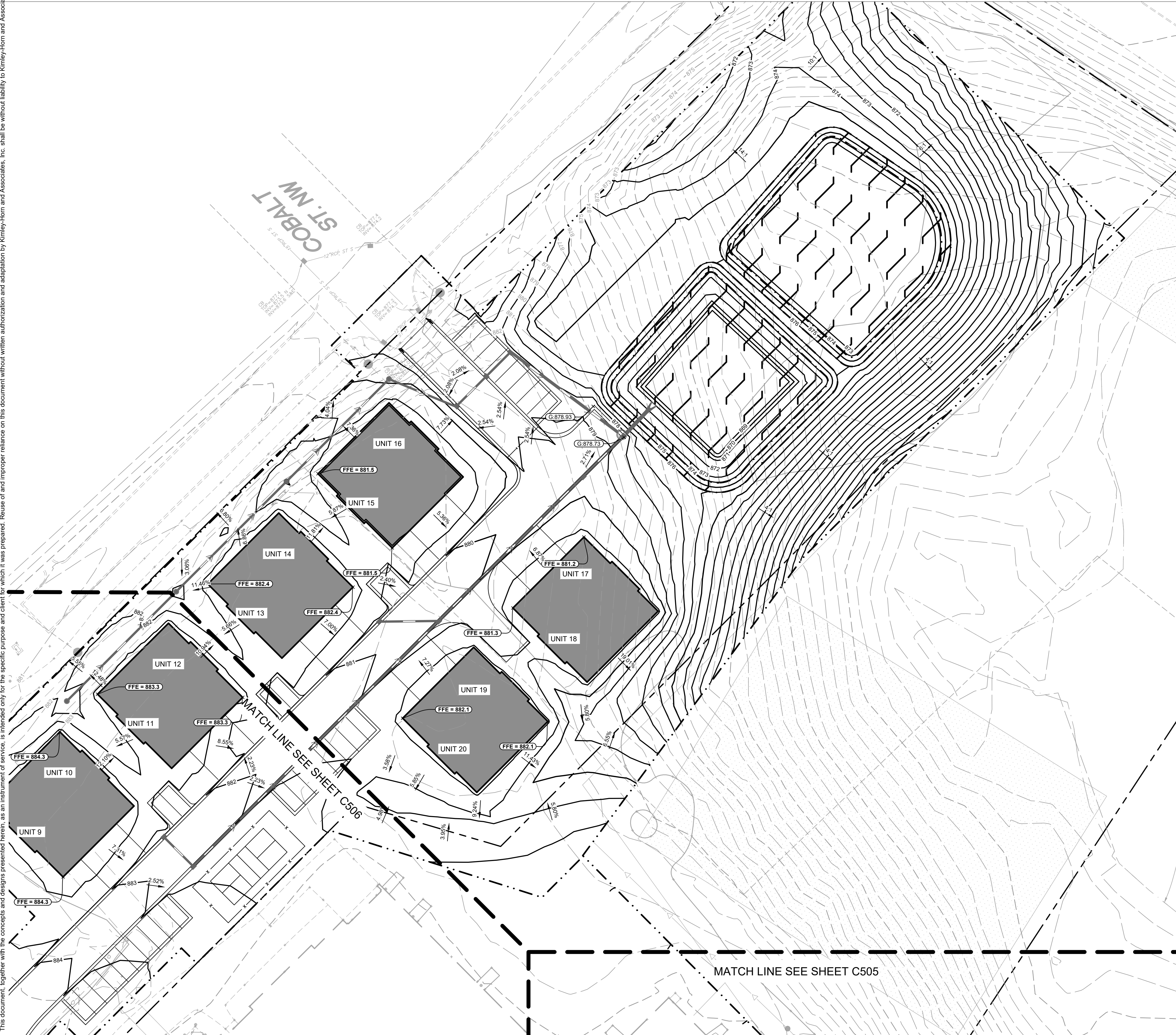
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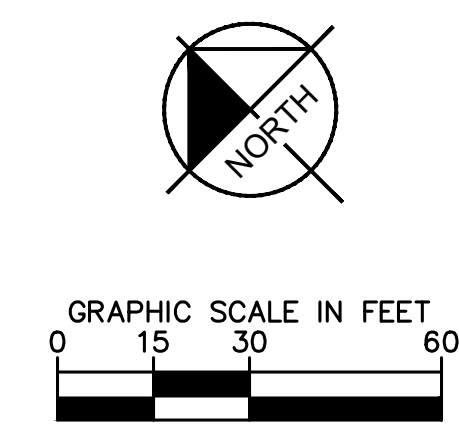
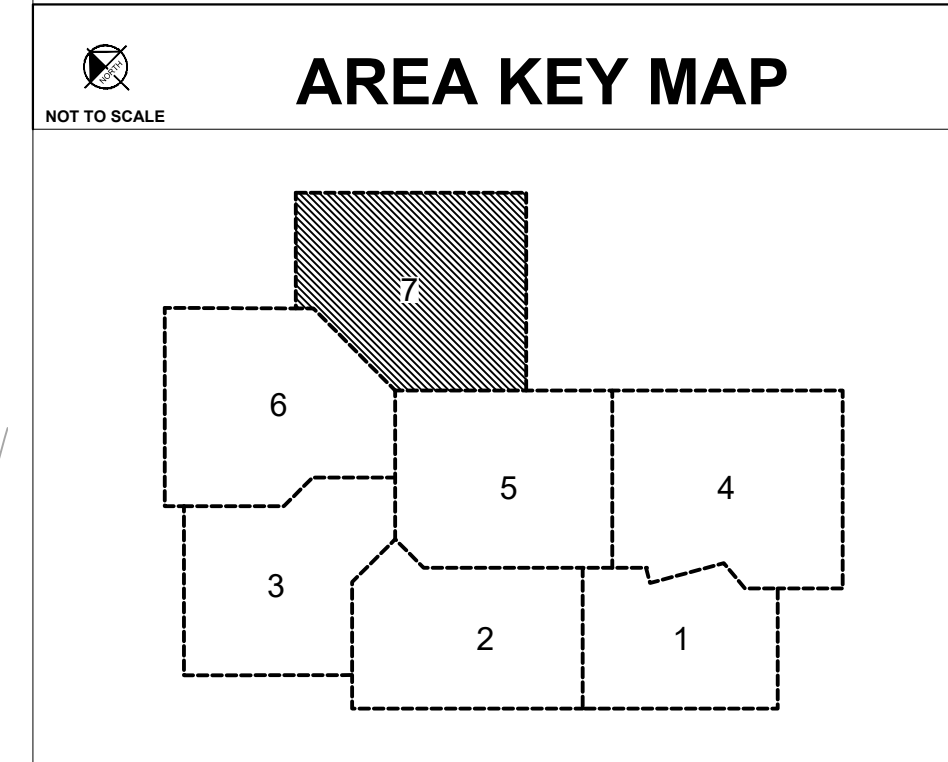
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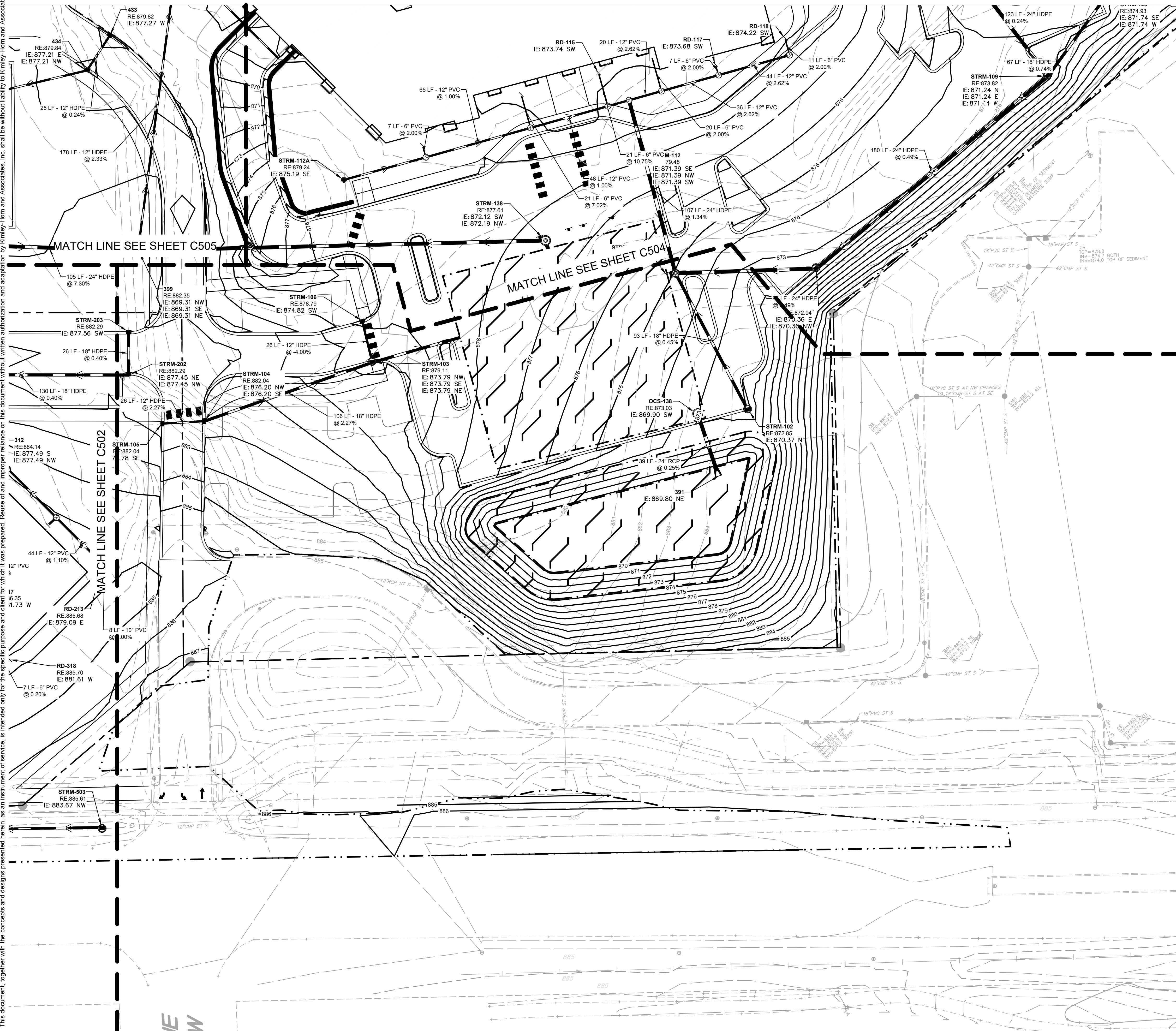
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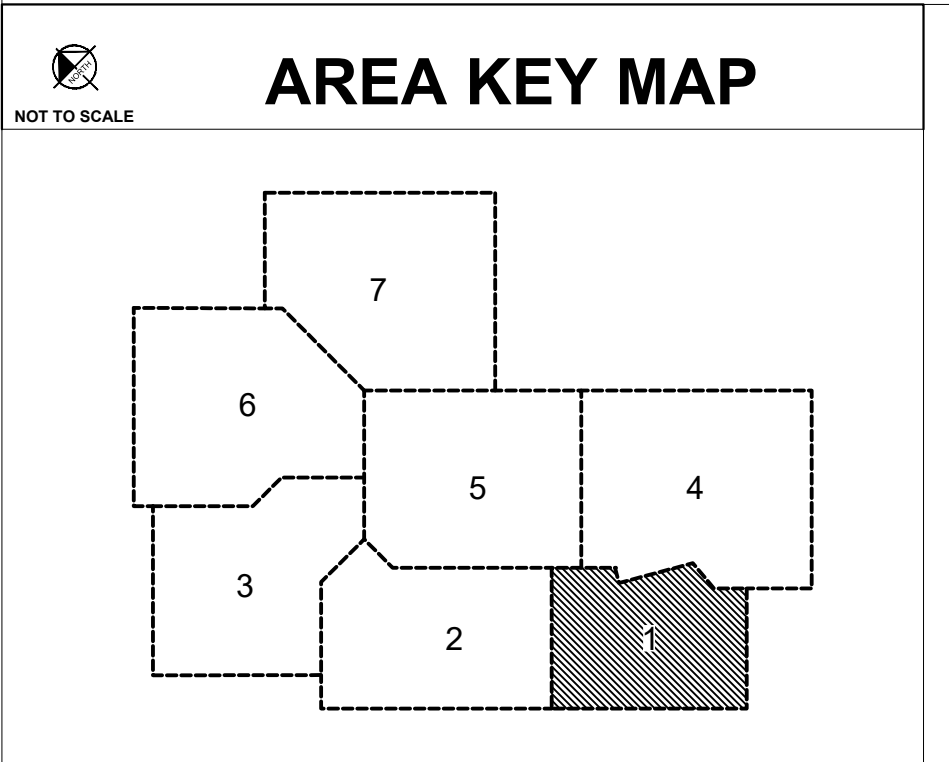
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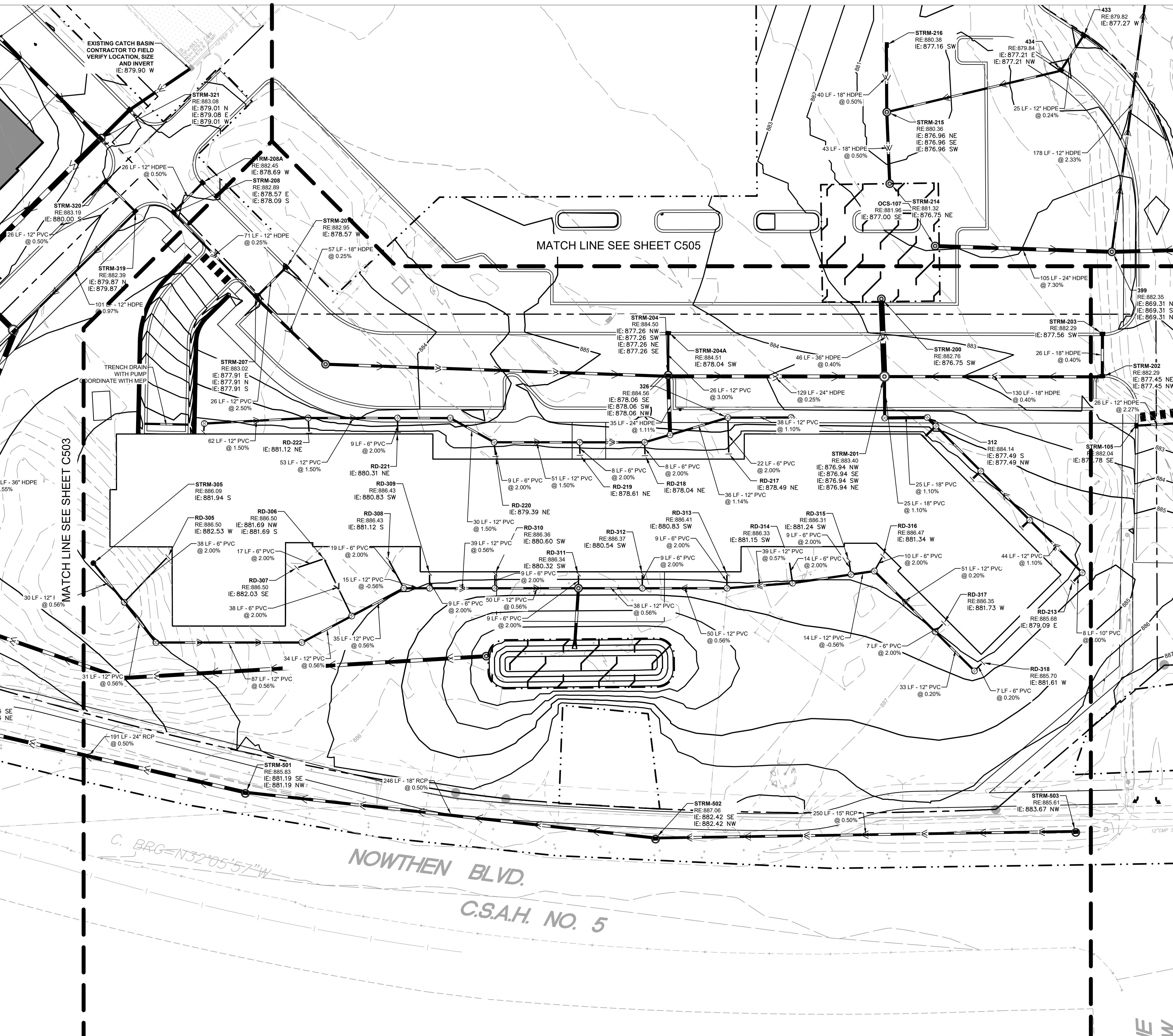
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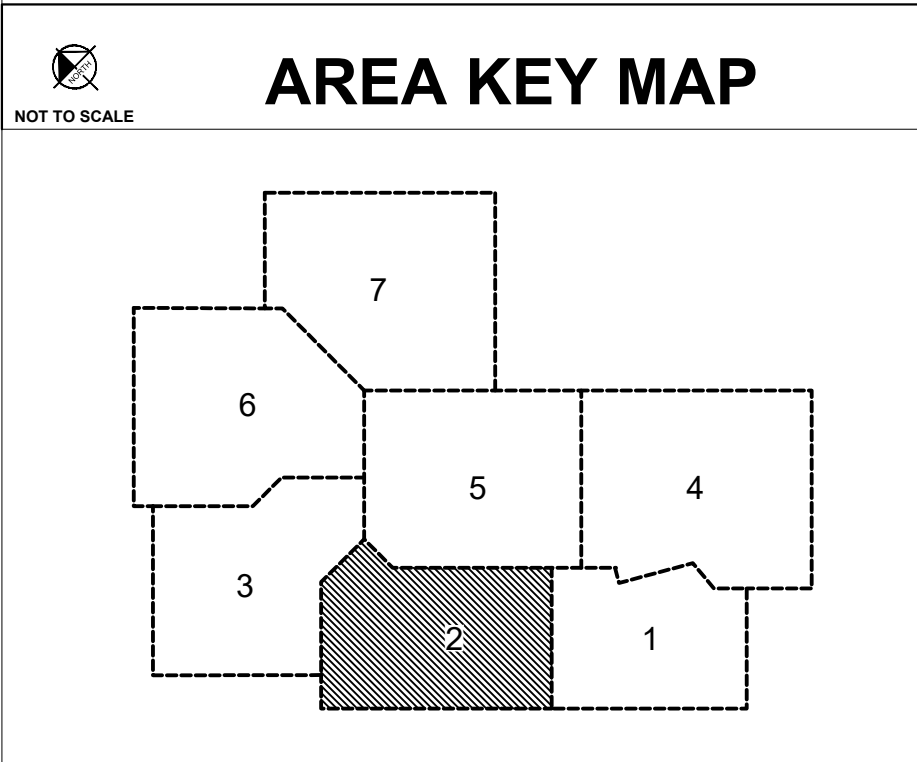
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LEGEND	
	PROPERTY LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED RIDGE LINE
	PROPOSED SWALE
	PROPOSED STORM MANHOLE (SOLID CASTING)
	PROPOSED STORM MANHOLE (ROUND INLET CASTING)
	PROPOSED STORM MANHOLE/ CATCH BASIN (CURB INLET CASTING)
	PROPOSED STORM SEWER CLEANOUT
	PROPOSED FLARED END SECTION
	PROPOSED RIPRAP
	PROPOSED STORM SEWER
	PROPOSED SPOT ELEVATION
	PROPOSED HIGH POINT ELEVATION
	PROPOSED LOW POINT ELEVATION
	PROPOSED GUTTER ELEVATION
	PROPOSED TOP OF CURB ELEVATION
	PROPOSED FLUSH PAVEMENT ELEVATION
	MATCH EXISTING ELEVATION
	PROPOSED EMERGENCY OVERFLOW ELEVATION
	PROPOSED TOP/BOTTOM OF WALL ELEVATION
	PROPOSED DRAINAGE DIRECTION
	PROPOSED ADA SLOPE



NORTH

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SHEET TITLE
STORM SEWER PLAN

SHEET NUMBER
C509

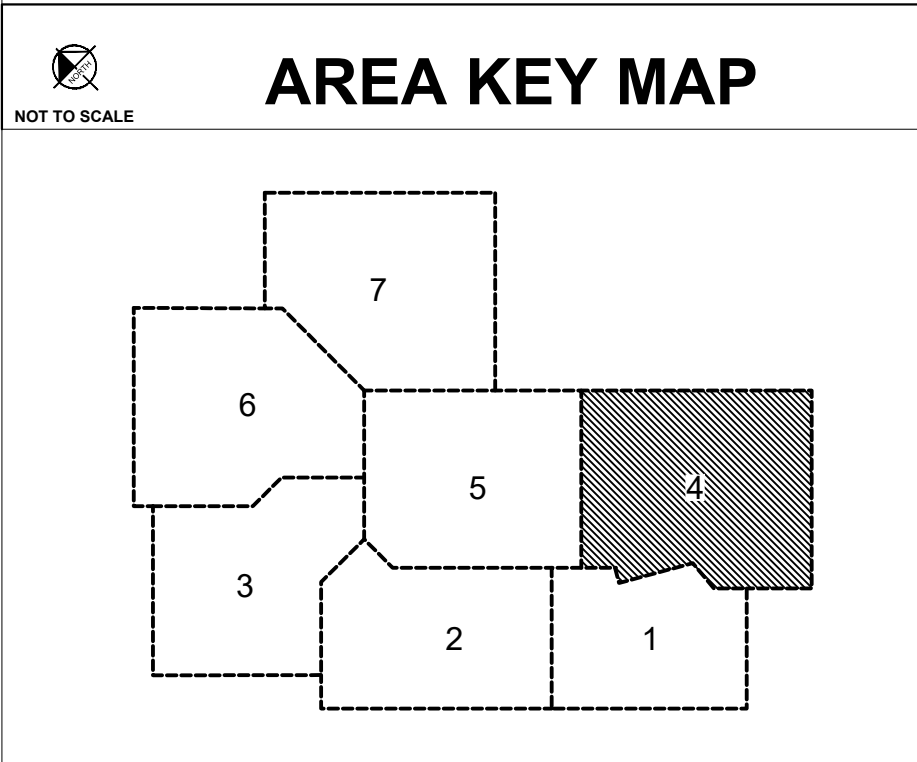
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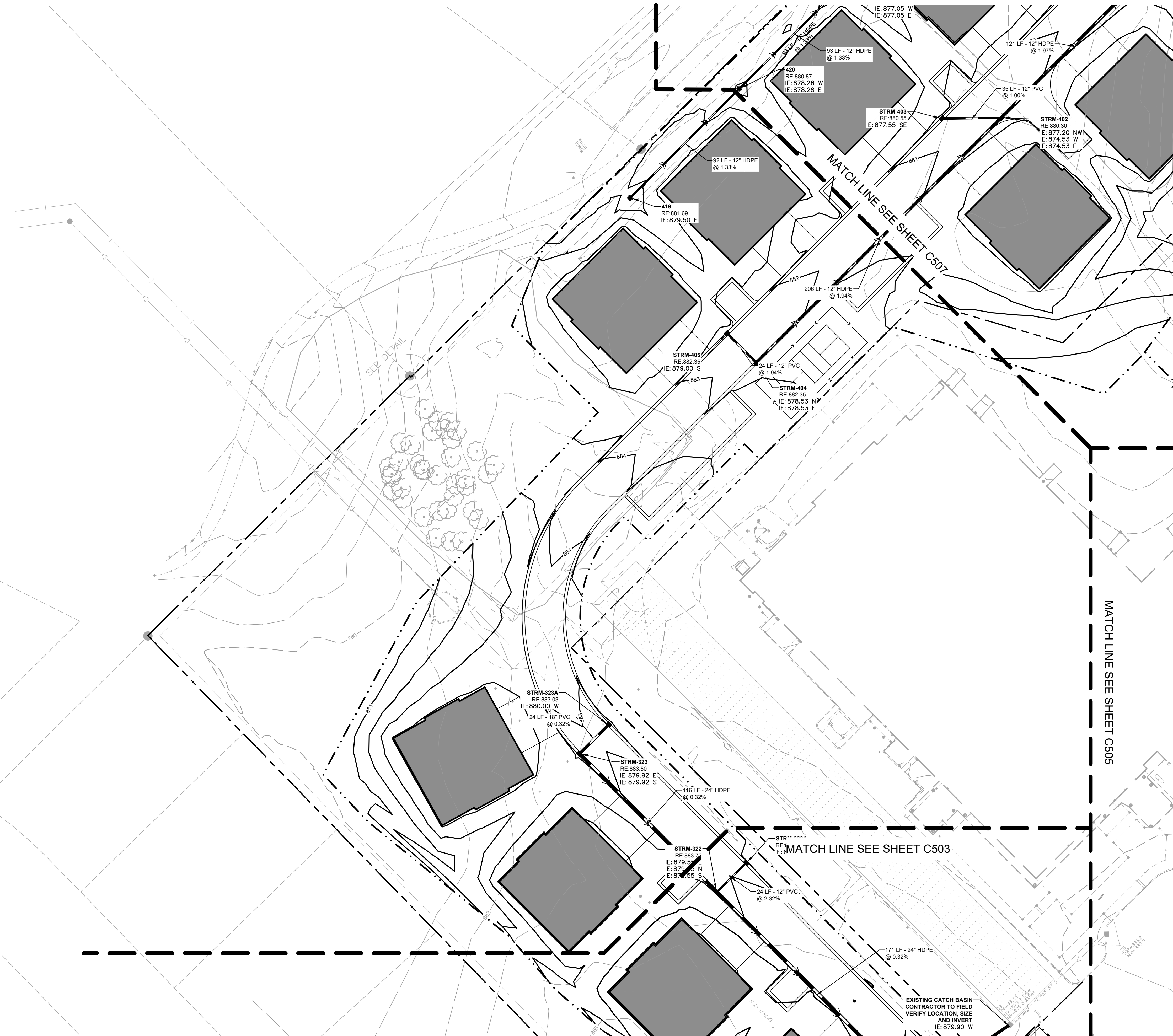
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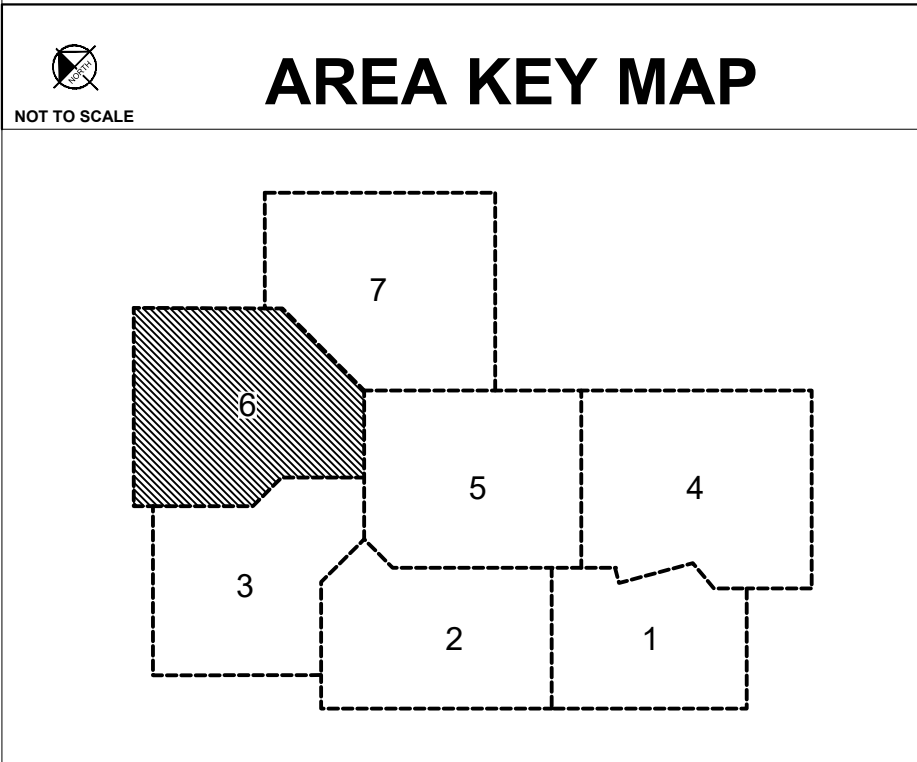
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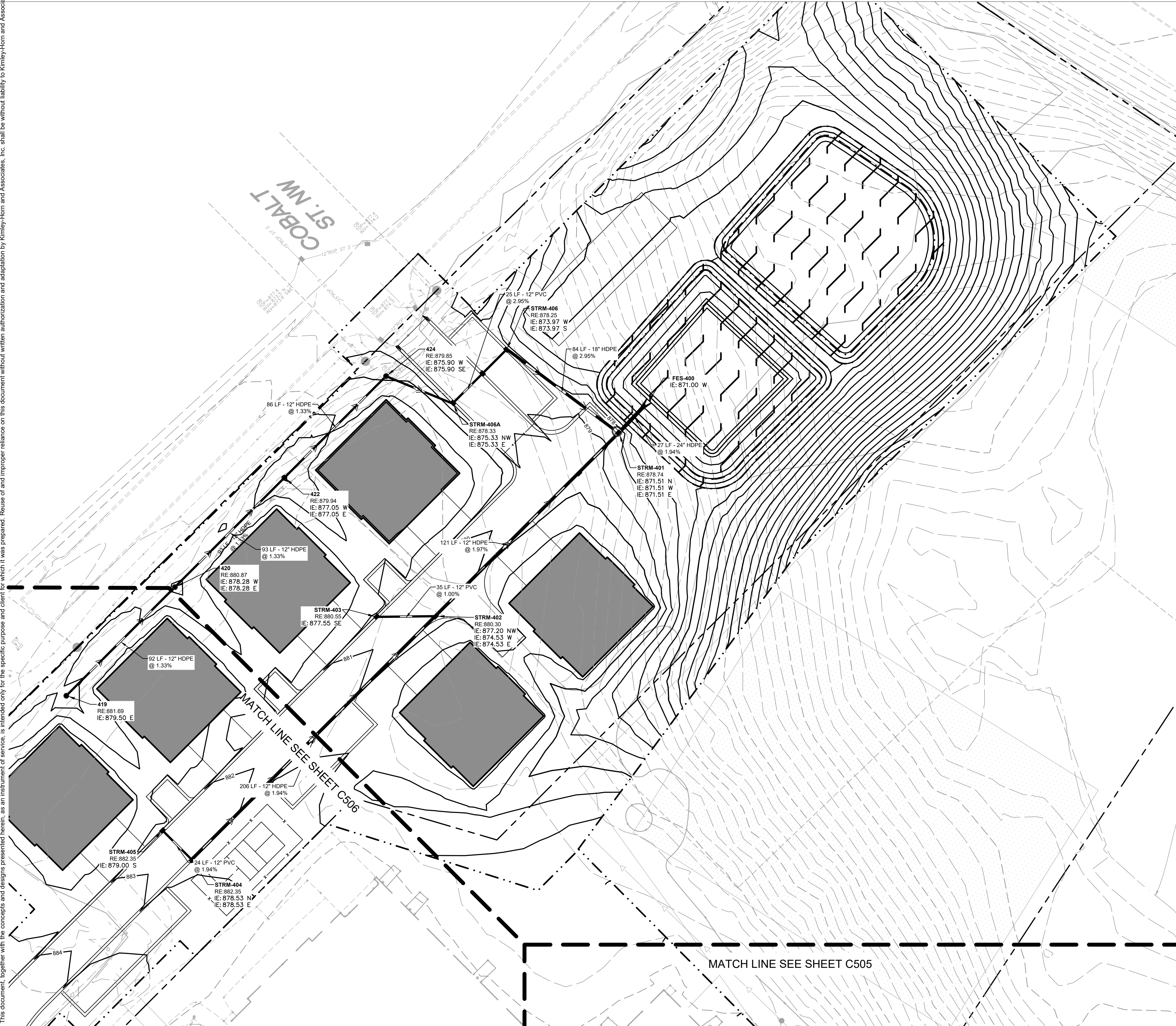
STORM SEWER PLAN

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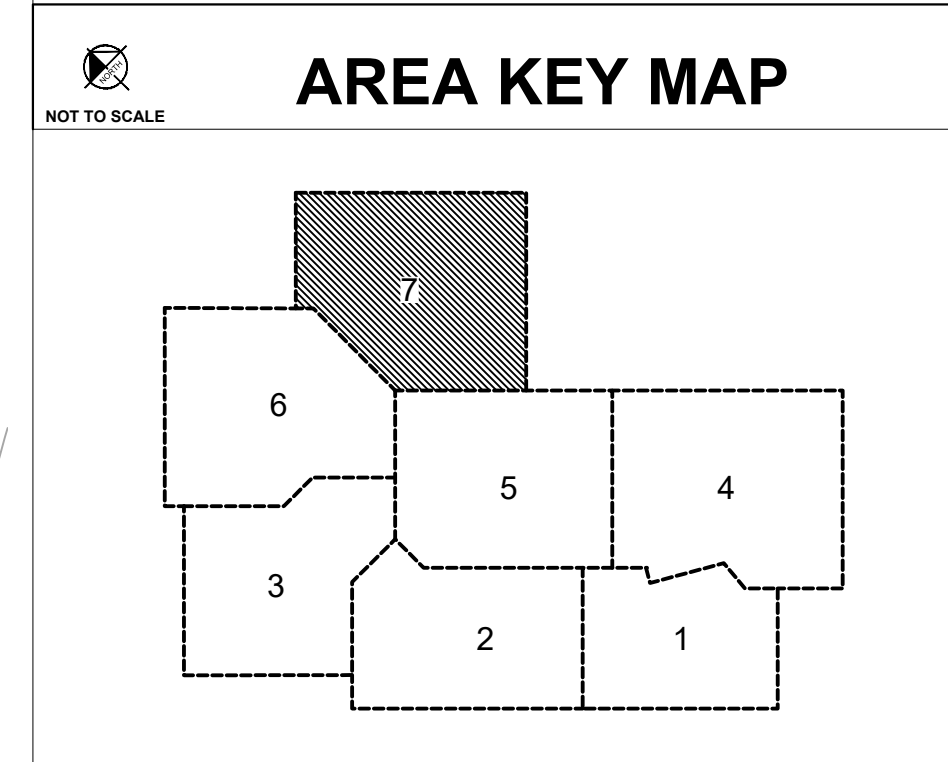
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LEGEND

	PROPERTY LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED RIDGE LINE
	PROPOSED SWALE
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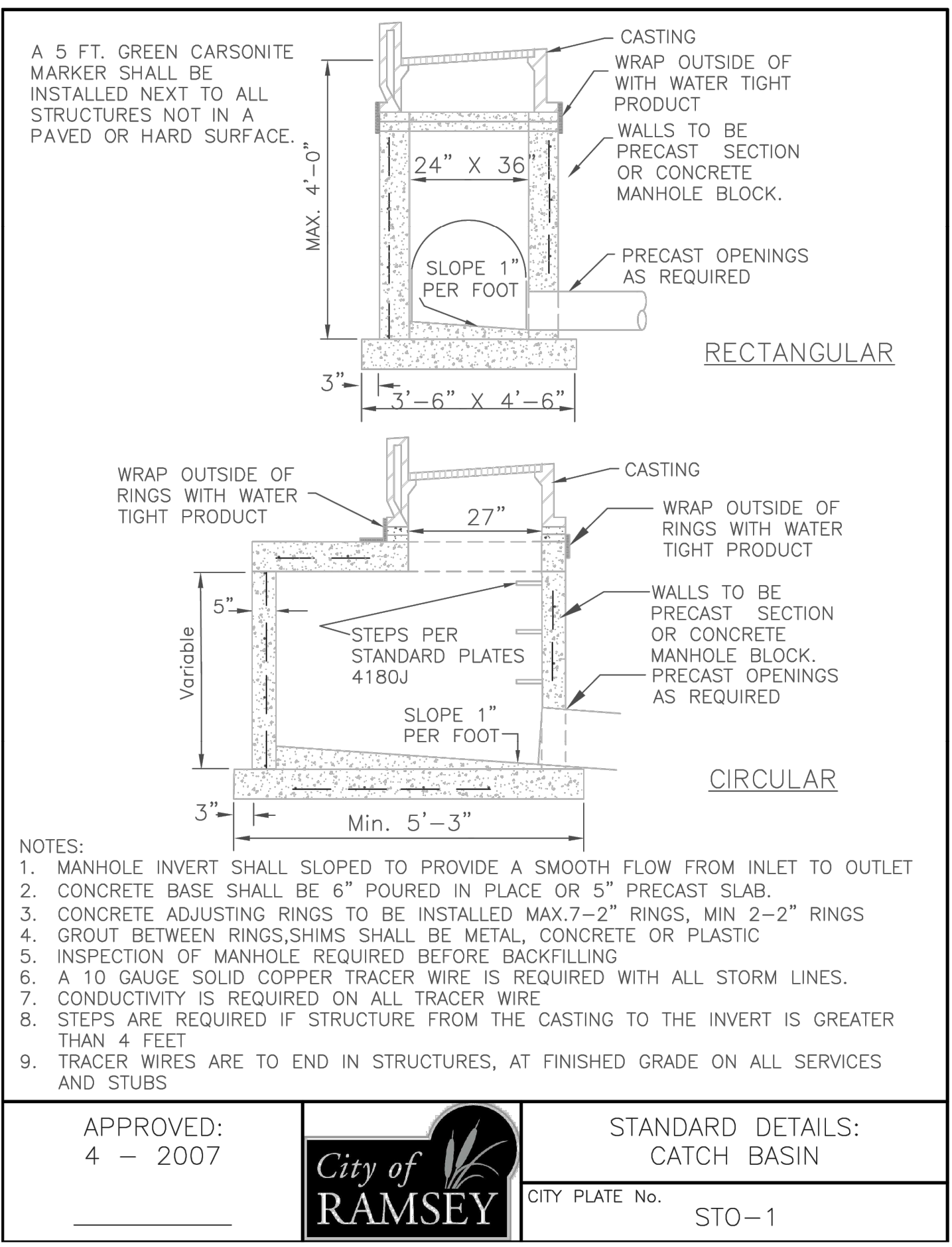
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STORM SEWER PLAN

SHEET NUMBER
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RECTANGULAR

CASTING
WRAP OUTSIDE OF RINGS WITH WATER TIGHT PRODUCT
WALLS TO BE PRECAST SECTION OR CONCRETE MANHOLE BLOCK.
PRECAST OPENINGS AS REQUIRED
SLOPE 1" PER FOOT
MAX. 4'-0"
24" X 36"
3'-6" X 4'-6"

CIRCULAR

WRAP OUTSIDE OF RINGS WITH WATER TIGHT PRODUCT
CASTING
WRAP OUTSIDE OF RINGS WITH WATER TIGHT PRODUCT
WALLS TO BE PRECAST SECTION OR CONCRETE MANHOLE BLOCK.
PRECAST OPENINGS AS REQUIRED
SLOPE 1" PER FOOT
STEPS PER STANDARD PLATES 4180J
Variable
3"
Min. 5'-3"

NOTES:
1. MANHOLE INVERT SHALL SLOPED TO PROVIDE A SMOOTH FLOW FROM INLET TO OUTLET
2. CONCRETE BASE SHALL BE 6" POURED IN PLACE OR 5" PRECAST SLAB.
3. CONCRETE ADJUSTING RINGS TO BE INSTALLED MAX. 7-2" RINGS, MIN 2-2" RINGS
4. GROUT BETWEEN RINGS, SHIMS SHALL BE METAL, CONCRETE OR PLASTIC
5. INSPECTION OF MANHOLE REQUIRED BEFORE BACKFILLING
6. A 10 GAUGE SOLID COPPER TRACER WIRE IS REQUIRED WITH ALL STORM LINES.
7. CONDUCTIVITY IS REQUIRED ON ALL TRACER WIRE
8. STEPS ARE REQUIRED IF STRUCTURE FROM THE CASTING TO THE INVERT IS GREATER THAN 4 FEET
9. TRACER WIRES ARE TO END IN STRUCTURES, AT FINISHED GRADE ON ALL SERVICES AND STUBS

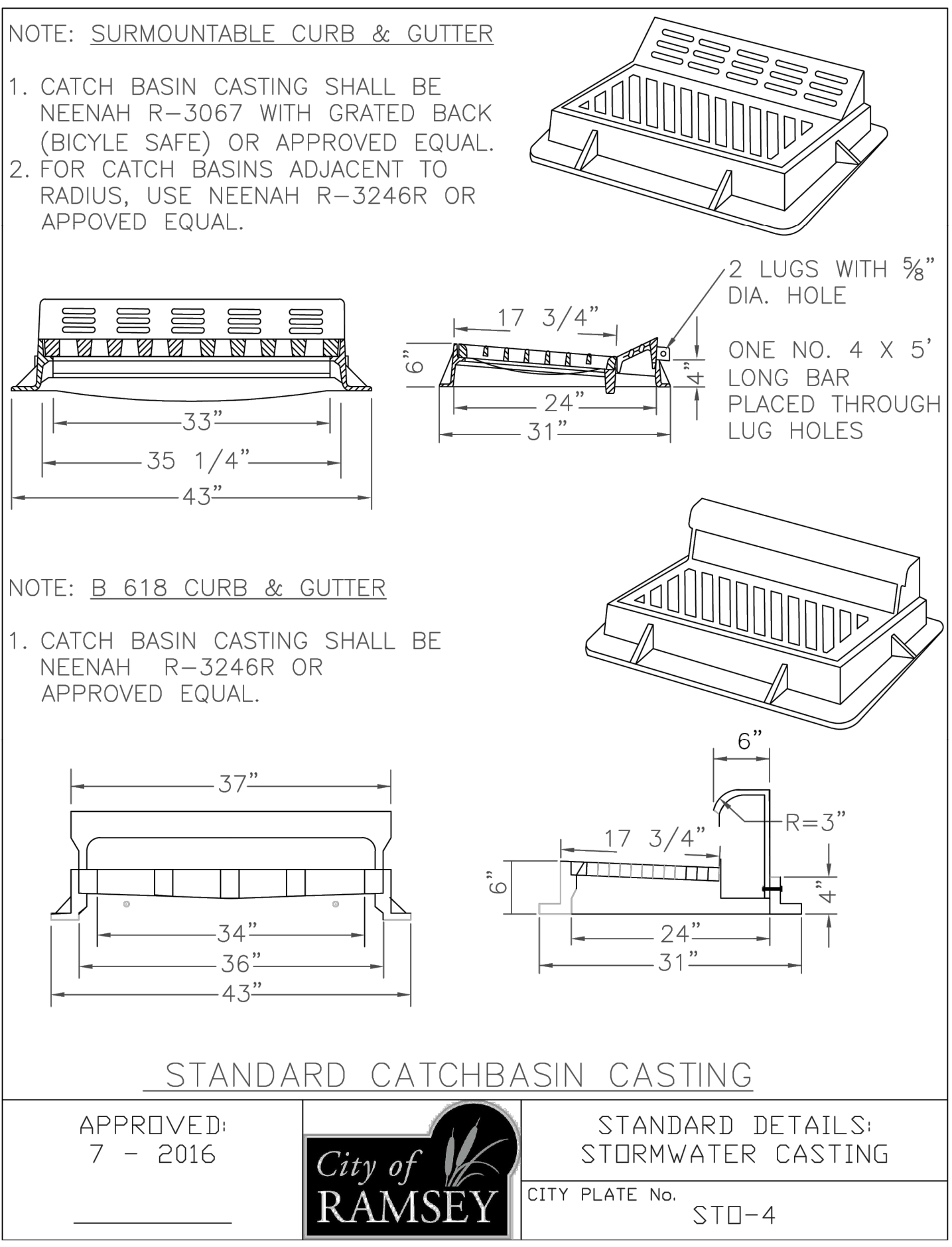
APPROVED: 4 - 2007

City of RAMSEY
CITY PLATE No. STO-1

STANDARD DETAILS: CATCH BASIN

NOTE: SURMOUNTABLE CURB & GUTTER

1. CATCH BASIN CASTING SHALL BE NEENAH R-3067 WITH GRATED BACK (BICYCLE SAFE) OR APPROVED EQUAL.
2. FOR CATCH BASINS ADJACENT TO RADIUS, USE NEENAH R-3246R OR APPROVED EQUAL.



2 LUGS WITH 5/8" DIA. HOLE
ONE NO. 4 X 5' LONG BAR PLACED THROUGH LUG HOLES
33"
35 1/4"
43"
17 3/4"
24"
31"
6"
37"
34"
36"
43"
17 3/4"
24"
31"
R=3"

NOTE: B 618 CURB & GUTTER

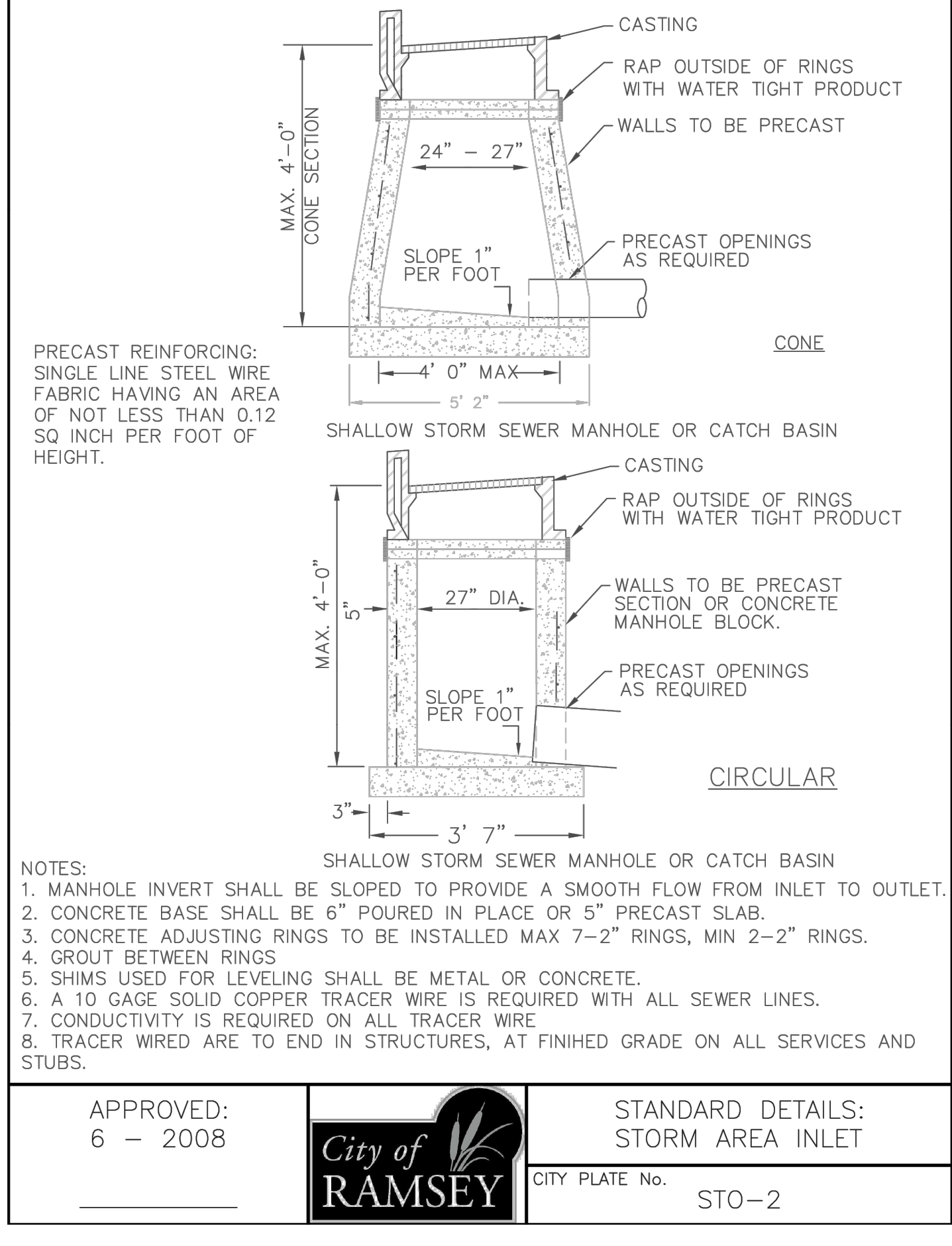
1. CATCH BASIN CASTING SHALL BE NEENAH R-3246R OR APPROVED EQUAL.

STANDARD CATCHBASIN CASTING

APPROVED: 7 - 2016

City of RAMSEY
CITY PLATE No. STO-4

STANDARD DETAILS: STORMWATER CASTING



CONE

CASTING
RAP OUTSIDE OF RINGS WITH WATER TIGHT PRODUCT
WALLS TO BE PRECAST
PRECAST OPENINGS AS REQUIRED
SLOPE 1" PER FOOT
MAX. 4'-0" CONE SECTION
24" - 27"
4' 0" MAX
5' 2"

CIRCULAR

CASTING
RAP OUTSIDE OF RINGS WITH WATER TIGHT PRODUCT
WALLS TO BE PRECAST SECTION OR CONCRETE MANHOLE BLOCK.
PRECAST OPENINGS AS REQUIRED
SLOPE 1" PER FOOT
MAX. 4'-0"
5"
27" DIA.
3' 7"

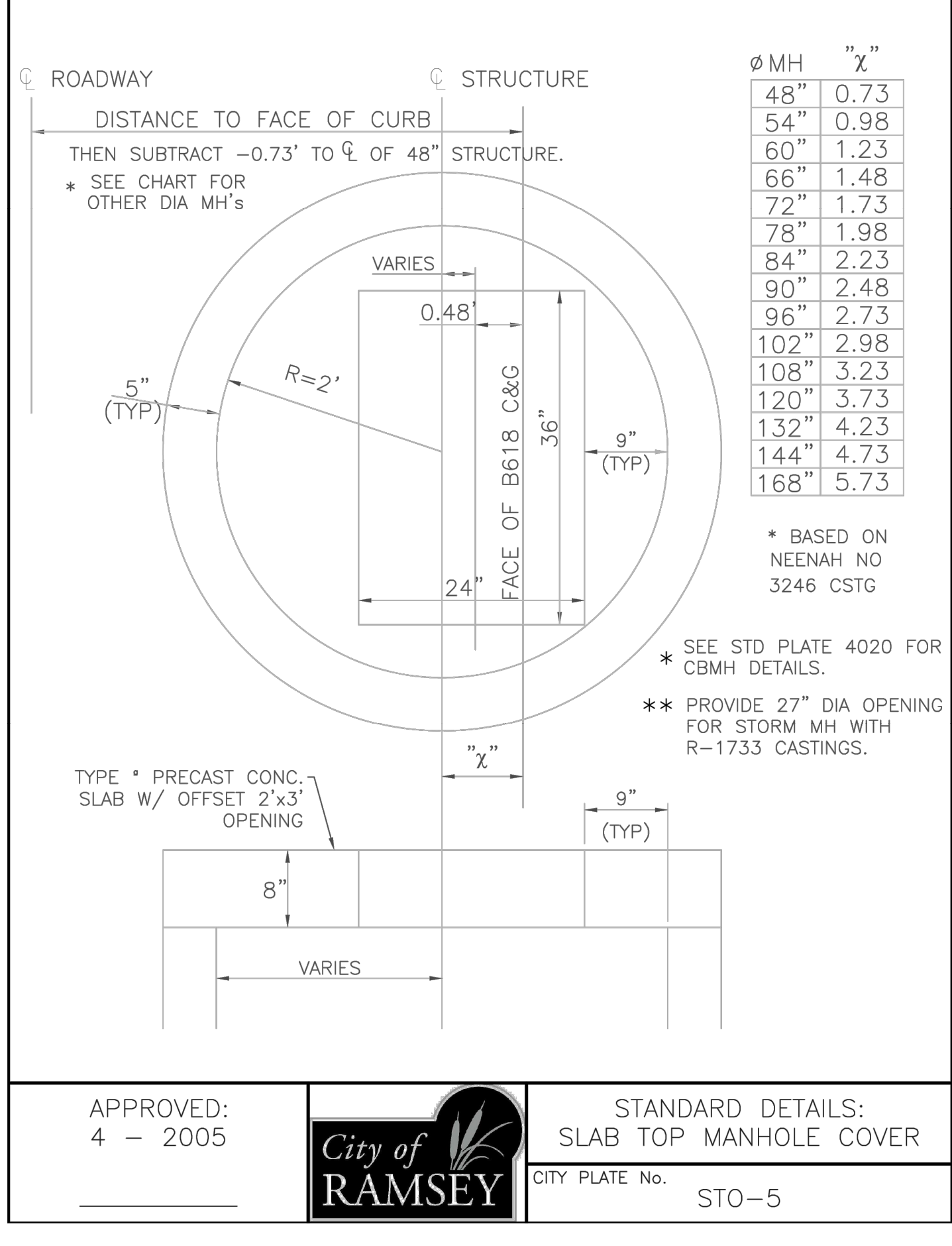
SHALLOW STORM SEWER MANHOLE OR CATCH BASIN

NOTES:
1. MANHOLE INVERT SHALL BE SLOPED TO PROVIDE A SMOOTH FLOW FROM INLET TO OUTLET.
2. CONCRETE BASE SHALL BE 6" POURED IN PLACE OR 5" PRECAST SLAB.
3. CONCRETE ADJUSTING RINGS TO BE INSTALLED MAX 7-2" RINGS, MIN 2-2" RINGS.
4. GROUT BETWEEN RINGS
5. SHIMS USED FOR LEVELING SHALL BE METAL OR CONCRETE.
6. A 10 GAGE SOLID COPPER TRACER WIRE IS REQUIRED WITH ALL SEWER LINES.
7. CONDUCTIVITY IS REQUIRED ON ALL TRACER WIRE
8. TRACER WIRES ARE TO END IN STRUCTURES, AT FINISHED GRADE ON ALL SERVICES AND STUBS.

APPROVED: 6 - 2008

City of RAMSEY
CITY PLATE No. STO-2

STANDARD DETAILS: STORM AREA INLET



ROADWAY
STRUCTURE
DISTANCE TO FACE OF CURB
THEN SUBTRACT -0.73' to C of 48" STRUCTURE.
* SEE CHART FOR OTHER DIA MH'S

Ø MH "X"	"X"
48"	0.73
54"	0.98
60"	1.23
66"	1.48
72"	1.73
78"	1.98
84"	2.23
90"	2.48
96"	2.73
102"	2.98
108"	3.23
120"	3.73
132"	4.23
144"	4.73
168"	5.73

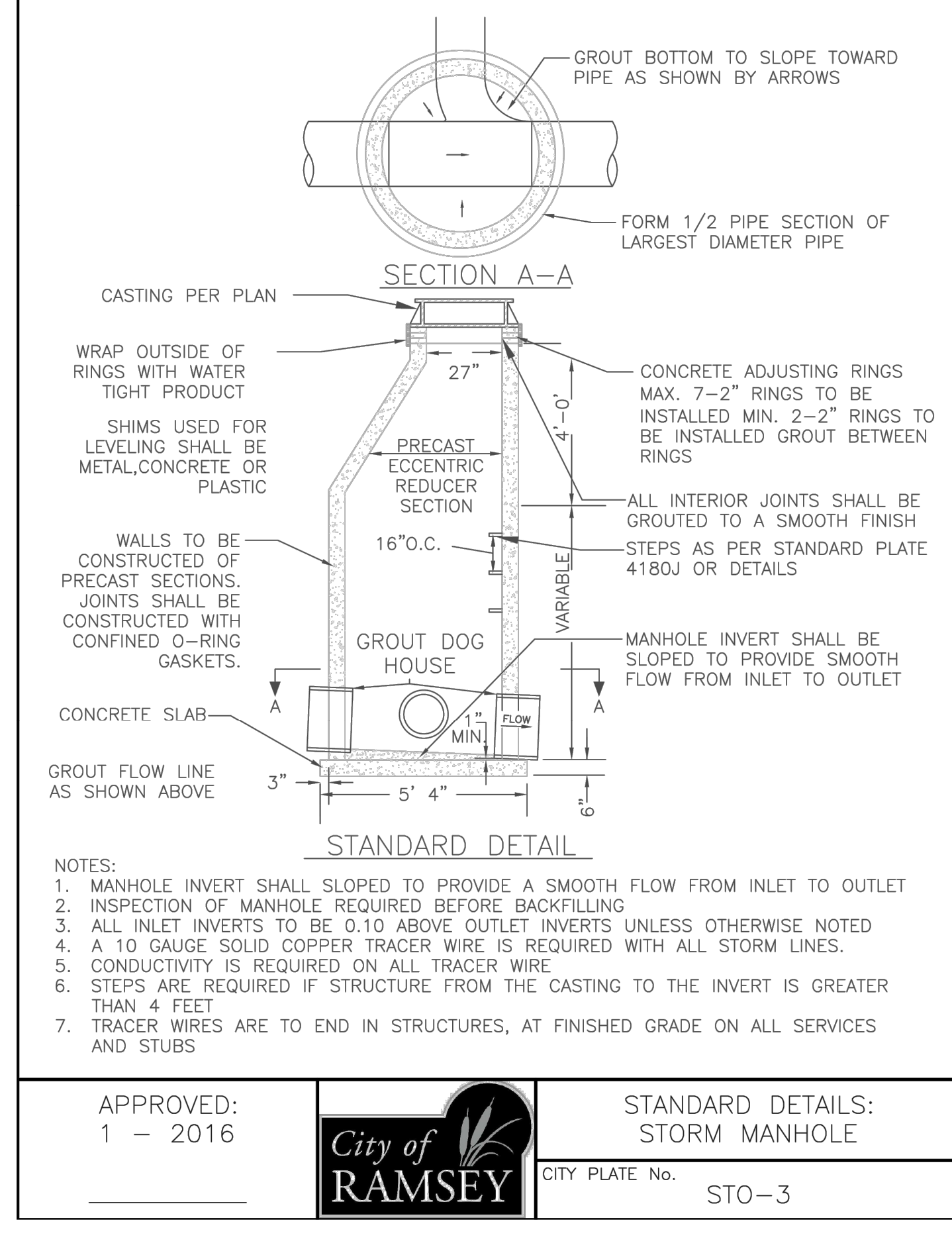
* BASED ON NEENAH NO 3246 CSTG
* SEE STD PLATE 4020 FOR CBMH DETAILS.
** PROVIDE 27" DIA OPENING FOR STORM MH WITH R-1733 CASTINGS.

TYPE * PRECAST CONC. SLAB W/ OFFSET 2'x3' OPENING

APPROVED: 4 - 2005

City of RAMSEY
CITY PLATE No. STO-5

STANDARD DETAILS: SLAB TOP MANHOLE COVER



SECTION A-A
GROUT BOTTOM TO SLOPE TOWARD PIPE AS SHOWN BY ARROWS
FORM 1/2 PIPE SECTION OF LARGEST DIAMETER PIPE
CASTING PER PLAN
WRAP OUTSIDE OF RINGS WITH WATER TIGHT PRODUCT
SHIMS USED FOR LEVELING SHALL BE METAL, CONCRETE OR PLASTIC
WALLS TO BE CONSTRUCTED OF PRECAST SECTIONS. JOINTS SHALL BE CONSTRUCTED WITH CONFINED O-RING GASKETS.
CONCRETE ADJUSTING RINGS MAX. 7-2" RINGS TO BE INSTALLED MIN. 2-2" RINGS TO BE INSTALLED GROUT BETWEEN RINGS
ALL INTERIOR JOINTS SHALL BE GROUTED TO A SMOOTH FINISH
STEPS AS PER STANDARD PLATE 4180J OR DETAILS
MANHOLE INVERT SHALL BE SLOPED TO PROVIDE SMOOTH FLOW FROM INLET TO OUTLET
GROUT FLOW LINE AS SHOWN ABOVE
3"
5' 4"

STANDARD DETAIL

NOTES:
1. MANHOLE INVERT SHALL SLOPED TO PROVIDE A SMOOTH FLOW FROM INLET TO OUTLET
2. INSPECTION OF MANHOLE REQUIRED BEFORE BACKFILLING
3. ALL INLET INVERTS TO BE 0.10 ABOVE OUTLET INVERTS UNLESS OTHERWISE NOTED
4. A 10 GAUGE SOLID COPPER TRACER WIRE IS REQUIRED WITH ALL STORM LINES.
5. CONDUCTIVITY IS REQUIRED ON ALL TRACER WIRE
6. STEPS ARE REQUIRED IF STRUCTURE FROM THE CASTING TO THE INVERT IS GREATER THAN 4 FEET
7. TRACER WIRES ARE TO END IN STRUCTURES, AT FINISHED GRADE ON ALL SERVICES AND STUBS

APPROVED: 1 - 2016

City of RAMSEY
CITY PLATE No. STO-3

STANDARD DETAILS: STORM MANHOLE

R-2560 Series or Approved Equal. Beehive Grates with Frames

SUITABLE FOR DRAINAGE ON CIRCUMSTANCES WHERE CLOGGING OF A FLAT GRATING IS A PROBLEM. EXCELLENT FOR ROADSIDE OR EARTH DITCH CATCH BASINS.

Catalog No.	Dimensions in inches							WT. LBS
	A	B	C	D	E	F	G	
R-2560-A	12	1	11	12 1/2	19	4	4	80
R-2560-B	15 1/2	1 1/4	15	15	21	5	3	120
R-2560-C	18	1 1/4	16 1/2	20 1/2	30	8	4	190
R-2560-C1	22	1 1/2	20	23	28	6	4 1/2	195
R-2560-C2	22	1 1/2	20 1/2	24	28 1/4	6	4 1/2	270
R-2560-D	22	1 1/2	20	24 1/2	35	9	4 1/2	315
R-2560-D1	22	1 1/2	20	23	28 1/4	6	7	210
R-2560-D2	22	1 1/2	20 1/2	24	35	6	7	285
R-2560-D3	22	1 1/2	20	24 1/2	36	9	7	345
R-2560-E	23	1 1/2	21	25 1/2	35 1/2	7	7	340
R-2560-EA	25 3/4	7/8	24 1/8	26 1/2	35 1/2	4	6	235
R-2560-EB	25 3/4	7/8	24 1/8	26 1/2	35 1/2	4	9	255
R-2560-EC	25 3/4	7/8	24 1/8	26 1/2	35 1/2	7	6	285
R-2560-E2	25 3/4	7/8	24 1/8	26 1/2	35 1/2	7	9	300
R-2560-E5	25 3/4	7/8	24 1/8	26 1/2	35 1/2	8	6	345
R-2560-E6	25 3/4	7/8	24 1/8	26 1/2	35 1/2	8	9	365
R-2560-E7	25 3/4	7/8	24 1/8	26 1/2	35 1/2	9	6	350
R-2560-E8	25 3/4	7/8	24 1/8	26 1/2	35 1/2	9	9	365
R-2560-E9	25 3/4	7/8	24 1/8	26 1/2	35 1/2	10	6	360
R-2560-E10	25 3/4	7/8	24 1/8	26 1/2	35 1/2	10	9	360
R-2560-G	32	1 1/2	30	36	46	7	4	535

R-2570 Catch Basin Frame, Grate
Light Duty
Total Weight 170 Pounds

STORM CASTINGS FOR NON-TRAFFIC AREAS NTS

APPROVED: 9 - 2011

City of RAMSEY
CITY PLATE No. STO-6

STANDARD DETAILS: STORM CASTING - NON TRAFFIC AREAS

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GRADING DETAILS

SHEET NUMBER
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NOTES:

1. A 10 GAGE SOLID COPPER TRACER WIRE REQUIRED WITH ALL SEWER LINES
2. CONDUCTIVITY IS REQUIRED ON ALL TRACER WIRE.
3. TRACER WIRES ARE TO END IN STRUCTURES, AT FINISHED GRADE ON ALL SERVICES AND STUBS.
4. 6" BASE FOR ALL MANHOLES LESS THAN 14FT. DEEP, INCREASE BASE 2" PER 6 FT OF DEPTH BEYOND 14 FT. 5" PRECAST BASE MAY BE USED FOR MANHOLES LESS THAN 14 FT. DEEP.

APPROVED: 1 - 2006

City of RAMSEY

STANDARD DETAILS: POND OUTLET

CITY PLATE No. STO-7

NOTE: GUARDS MUST BE INCORPORATED ON ALL INSTALLATIONS EXCEPT WHERE SPECIFICALLY ALLOWED OTHERWISE BY THE CITY ENGINEER.

IMPORTANT

HINGED CONNECTIONS (TO BE FREE OF RIP RAP AND BACKFILL)

6" MAX.

ALL GUARDS TO HAVE (1) CROSS BAR - 60" AND UP TO HAVE (2) EQUALLY SPACED

PIPE SIZE	BOLT DIA.	BAR SIZE
12"-24"	5/8"	5/8"
27"-48"	3/4"	3/4"
54"-90"	1"	1"
22"-29"	5/8"	5/8"
36"-59"	3/4"	3/4"
65"-88"	1"	1"

NOTE: COATINGS ARE AS SPECIFIED ELSEWHERE

IMPORTANT

APPROVED: 2 - 2006

City of RAMSEY

STANDARD DETAILS: TRASH GUARD

CITY PLATE No. STO-8

NOTES:

1. A 10 GAGE SOLID COPPER TRACER WIRE IS REQUIRED WITH ALL SEWER LINES
2. CONDUCTIVITY IS REQUIRED ON ALL TRACER WIRE
3. TRACER WIRES ARE TO END IN STRUCTURES, AT FINISHED GRADE ON ALL SERVICES AND STUBS
4. STEPS WILL BE REQUIRED AT A MAXIMUM OF 3' FROM THE RIM AND 16" ON CENTER THERE AFTER.
5. 8" BASE FOR ALL MANHOLES LESS THEN 14' DEEP, INCREASE BASE THICKNESS BY 2" PER 6' OF DEPTH BEYOND 14' & REINFORCE WITH 6"x 6" & 10" X 10" MESH.

APPROVED: 1 - 2016

City of RAMSEY

STANDARD DETAILS: SUMP MANHOLE

CITY PLATE No. STO-9

NOTE: TRASH GUARDS SEE DETAIL STO-12

NOTE: FOR USE WITH PIPE 36" DIA. OR GREATER

(3) 1-1/4" HOLES USE 3-1/8" BY 1" L-SHAPED BOLTS AND TIE TO REBAR VERTICAL AND HORIZONTAL

NOTE: BRING CONCRETE HEADWALL UP TO A POINT THAT WILL NOT HINDER THE OPERATION OF THE TRASH GUARD.

#4 EACH FACE 1" (TYP.) HORIZONTAL

#3 AT 12" O.C. STAGGERED VERTICAL

LIGHTWEIGHT SHEET PILE ASTM-A-857, GR. 33&36

16.9 LBS PER LINEAL FOOT 0.209 NOMINAL THICKNESS

APPROVED: 9 - 2016

City of RAMSEY

STANDARD DETAILS: STORM SEWER PILING & CONCRETE END SECTION

CITY PLATE No. STO-10

CASTING PER PLAN MINIMUM OF 2 AND MAXIMUM OF 6 REINFORCED CONCRETE ADJUSTING RINGS

PLACE FULL MORTAR BED BETWEEN RINGS, AND INSTALL WATER TIGHT WRAP AROUND CASTING AND RINGS

REINFORCED CONCRETE COVER CONFORMING TO ASTM C478

8"

24"

6" MIN

6.75"

AS REQUIRED

16" O.C.

18" HDPE

18" HDPE OUTLET

INLETS AS REQUIRED

REMOVABLE MAINTENANCE CAP

36"

24"

48"

8"

64"

REINFORCED CONCRETE BASE SLAB CONFORMING TO ASTM C478 AND MNDOT STD. PLATE 4011

APPROVED: 4 - 2016

City of RAMSEY

STANDARD DETAILS: OIL SKIMMER CATCH BASIN

CITY PLATE No. STO-11

90° BEND W/ ACCESS RISER HDPE PIPE 90° BEND W/ ACCESS RISER

OUTLET TEE HDPE PIPE TEE INLET

PLAN VIEW NOT TO SCALE

6" TOPSOIL WITH SEED INSTALL FILTER FABRIC BETWEEN TOPSOIL AND ROCK

UNDISTURBED EARTH

36" HDPE PERFORATED PIPE

2" MINUS CLEAR ROCK

GEOTEXTILE FILTER FABRIC

MINIMUM SPACINGS
 PIPE COVER 12"
 PIPE TO TRENCH SIDEWALL 18"
 PIPE CENTER TO PIPE CENTER 63"
 PIPE WALL TO PIPE WALL 22"

INSTALL GEOTEXTILE FILTER FABRIC BETWEEN ROCK AND ADJACENT SOIL ON BOTTOM, SIDES AND TOP OF TRENCH.

SECTION VIEW NOT TO SCALE

APPROVED: 9 - 2011

City of RAMSEY

STANDARD DETAILS: HDPE DRAINAGE STRUCTURE

CITY PLATE No. STO-12



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PROJECT TITLE

HAVILAND FIELDS

CERTIFICATION

NOT FOR CONSTRUCTION

DRAWN BY
CHECKED BY
COMMISSION NUMBER

SHEET TITLE
GRADING DETAILS

SHEET NUMBER

C516

PRELIMINARY - NOT FOR CONSTRUCTION

