

CONSTRUCTION DRAWINGS FOR PUBLIC IMPROVEMENTS

SPYGLASS

PLAT 1
CITY OF WAUKEE
AS-BUILTS

STORM WATER POLLUTION
PREVENTION PLAN

SITE DESCRIPTION

Location: Part of NW1/4 Sec. 5, T78N, R26W.
Nature of Construction Activity: Single family residential
Areas: Total site area = 31.5 acres
Site area affected = 26 acres
Runoff coefficient = 0.40 (rational method)
Approximate slopes anticipated: 3:1, or flatter.
Runoff from this project will flow into a tributary of Sugar Creek.

CONTROLS

- Erosion and sediment controls
- Stabilization practices
 - Existing vegetation is preserved whenever possible.
 - Permanent seeding and/or sodding.
 - Structural practices
 - Silt fences
 - Drainage swales
 - Rock outlet protection (riprap)
 - Storm water management
 - Infiltration of runoff onsite.
 - Velocity dissipation devices at discharge locations to provide non-erosive velocity flows.
 - Waste disposal
 - All building material wastes must be removed from the site.
 - Off-site vehicle tracking of sediments shall be minimized.

MAINTENANCE

- Maintain effective operating conditions of all protective measures identified in this plan.
- Silt fencing is cleaned when they have lost 50% of their capacity.
 - Drainage swales remain undisturbed.
 - Rock outlet protection (riprap) remains intact.

INSPECTIONS

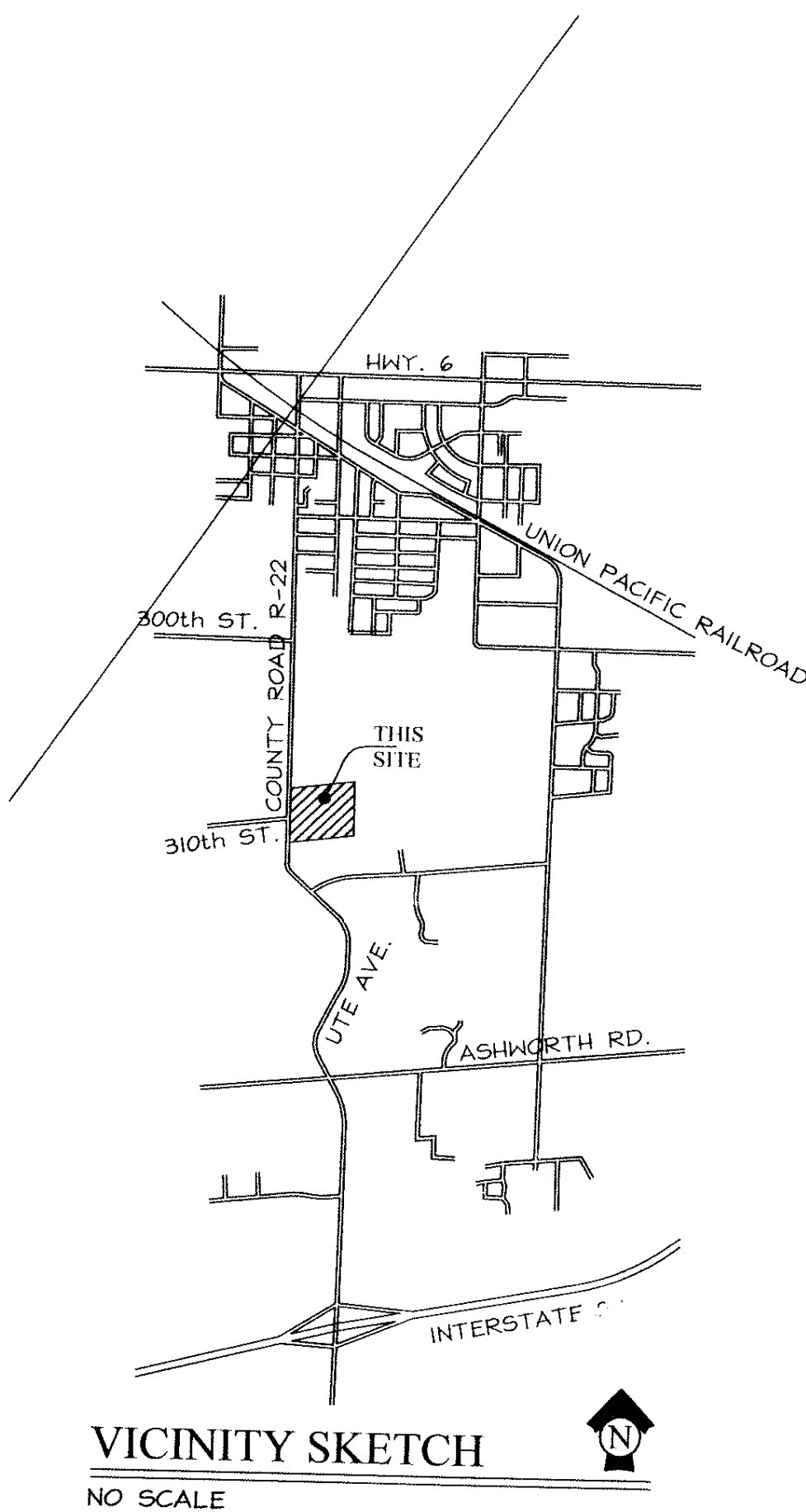
- Qualified personnel shall inspect disturbed areas of the construction site that have not been finally stabilized at least once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater.
- Inspect site for evidence of, or the potential of, pollutants entering the drainage system from stored materials.
 - Observe erosion and sediment controls to ensure that they are operating correctly.
 - Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking.
 - Inspect discharge locations to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.
 - Any modifications to the plan as a result of an inspection shall be implemented within 7 calendar days of the inspection.
 - An inspection report shall be prepared and retained as part of the prevention plan until project termination, this report will contain the following:
 - A summary of the scope of the inspection.
 - Qualifications of the personnel making the inspection.
 - Major observations relating to the implementation of the prevention plan.
 - Any actions taken.
 - Signature.

NON-STORM WATER DISCHARGES

- Water main flushing
- Flushed water will be discharged into the storm sewer system where, when discharged, it will undergo erosion and sediment controls consisting of:
 - Rock outlet protection (riprap)

NOTES

- ONE WEEK PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY:
 - WAUKEE CITY ENGINEER
 - OAKS DEVELOPMENT COMPANY
 - COOPER CRAWFORD & ASSOCIATES, LLC
 - IOWA ONE-CALL
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF WAUKEE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL PROTECT ALL STRUCTURES AND SURFACE AND SUBSURFACE UTILITIES. UTILITY COMPANIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION (IOWA ONE CALL: 1-800-242-8999, 48 HOURS NOTICE). ANY DAMAGE TO UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE UTILITY OWNER AT THE EXPENSE OF THE CONTRACTOR.
- STRIP TOPSOIL FROM ALL AREAS WHICH ARE TO BE FILLED OR CUT.
- MAINTAIN ALL CUT AND FILL AREAS FOR SURFACE DRAINAGE AT ALL TIMES.
- ALL AREAS TO RECEIVE FILL TO BE BENCHED.
- PREPARE BOTTOM OF BENCH FOR FILL BY DISCING TO A DEPTH OF 6-INCHES.
- ALL SITE GRADING FILL SHALL BE COMPACTED TO A DENSITY THAT IS NOT LESS THAN 95% STANDARD PROCTOR DENSITY.
- THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL NOT DEVIATE FROM OPTIMUM BY MORE THAN 0% TO +4%.
- FINAL GRADES WITHIN THE STREET RIGHT-OF-WAY SHALL BE WITHIN +/- 0.1' OF PLAN GRADE, ALL OTHER AREAS TO BE WITHIN +/- 0.2' OF PLAN GRADE.
- THE GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL SILT FENCES.
- INSTALL SILT FENCES OR STRAW BALES AS SHOWN.
- ALL AREAS WHICH ARE DISTURBED SHALL BE SEEDED WITH EROSION CONTROL MIX.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ADDITIONAL SILT FENCES DURING CONSTRUCTION IF REQUIRED BY ENGINEER OR CITY OFFICIAL.
- ALL INTAKES SHALL BE ENCOMPASSED WITH SILT FENCE UNTIL SUBGRADE PREP.
- THE CONTRACTOR SHALL VERIFY THE UTILITY LOCATES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING THE AS-BUILT LOCATIONS OF ALL SERVICES.
- ALL SANITARY SEWER SERVICES AND 8-INCH STUB-OUTS SHALL BE CAPPED.
- PLUMBING CONTRACTOR SHALL VERIFY SERVICE STUB-OUT ELEVATIONS PRIOR TO HOUSE CONSTRUCTION TO ENSURE BASEMENT FLOOR ELEVATIONS WILL PROVIDE ADEQUATE FALL IN SERVICE PIPE.
- ALL FIRE HYDRANTS SHALL BE 3.5' FROM WATER MAIN.
- CONTRACTOR SHALL VERIFY PRIOR TO CONSTRUCTION THAT FIRE HYDRANTS WILL NOT CONFLICT WITH SIDEWALK CONSTRUCTION.
- HYDRANTS, MANHOLE COVERS, AND VALVE BOXES SHALL BE SET TO CONFORM TO FINISHED PAVEMENT ELEVATIONS.
- WATER MAIN TO HAVE 5.5' BURY TYPICAL EXCEPT AT CRITICAL CROSSINGS.
- ALL INTAKES SHALL HAVE TYPE 'R' CASTINGS.
- ALL ELEVATIONS ARE PROPOSED FINISHED GRADE AT TOP OF CURB UNLESS OTHERWISE NOTED.
- ALL REINFORCED STEEL SHALL BE EPOXY COATED.
- SUBGRADE TO BE 12-INCH THICK EARTH COMPACTED TO 95% MAX. DENSITY WITH MOISTURE CONTENT NOT MORE THAN 4% ABOVE OR 0% BELOW OPTIMUM.
- DURING SUBGRADE PREPARATION, GRADE SHALL BE PROOF-ROLLED PRIOR TO PLACEMENT OF 1 FOOT SUBGRADE AND COMPACTION.



LEGEND

- EXISTING/PROPOSED
- ST — PLAT BOUNDARY
 - SAN — STORM SEWER # SIZE
 - W — SANITARY SEWER # SIZE
 - W — WATER MAIN # SIZE
 - MANHOLE
 - STORM INTAKE
 - ⊕ FIRE HYDRANT
 - 960 — EXISTING CONTOURS
 - 960 — PROPOSED CONTOURS
 - X — SILT FENCE OR
 - X — APPROVED FILTRATION SOCK

OWNER/DEVELOPER

OAKS DEVELOPMENT
2171 GRAND AVE.
WEST DES MOINES, IA 50265

QUANTITIES

SANITARY SEWER

4402 L.F. 8-INCH SANITARY SEWER
19 EA. TYPE 'A' MANHOLE
1 EA. TYPE 'H' MANHOLE
69 EA. SERVICES

WATER

3621 L.F. 8-INCH C900 WATERMAIN
1088 L.F. 12-INCH C900 WATERMAIN
12 EA. 8-INCH VALVE
2 EA. 12-INCH VALVE
3 EA. 8"x8"x8" TEE
1 EA. 8"x8"x8"x8" CROSS
1 EA. 12"x12"x8" TEE
14 EA. HYD. TEE & 6-INCH VALVE
2 EA. WATERTIGHT PLUG
69 EA. SERVICES

STORM SEWER

1312 L.F. 8-INCH FOOTING DRAIN
2224 L.F. 15-INCH RCP CLASS III
1046 L.F. 18-INCH RCP CLASS III
157 L.F. 24-INCH RCP CLASS III
12 EA. TYPE 'M-B' MANHOLE
3 EA. TYPE 'M-A' MANHOLE
5 EA. TYPE 'M-A' INTAKE
4 EA. TYPE 'M-C' COMBO INTAKE
5 EA. TYPE 'M-D' DOUBLE INTAKE
2 EA. TYPE 'M-E' MODIFIED DOUBLE COMBO INTAKE
3 EA. 15-INCH F.E.S.
1 EA. 18-INCH F.E.S.
1 EA. 24-INCH F.E.S.
35 TONS CLASS 'D' RIP RAP
69 EA. SERVICES

PAVING

13071 S.Y. 6-INCH REINFORCED P.C.C. OR
13900 S.Y. 7-INCH NON-REINFORCED P.C.C.
SUBGRADE PREP

DRAWING INDEX

1	COVER SHEET
2	GRADING PLAN
3-7	SANITARY SEWER
8-12	WATER PLAN
13-17	STORM SEWER
18-22	PAVING PLAN

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

ERIK A. GILBERTSON, IOWA LICENSE NO. 16516
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2004
PAGES OR SHEETS COVERED BY THIS SEAL:
SHEETS 1-22

COOPER CRAWFORD
& ASSOCIATES, L.L.C.
CIVIL ENGINEERS

2167 GRAND AVENUE, WEST DES MOINES, IOWA 50265
PHONE: (515) 224-1344 FAX: (515) 224-1345

DATE: 7-22-2004
REVISIONS:

JOB NUMBER

CC
0239

AS-BUILTS: 1-21-2005

COVER SHEET
SPYGLASS

SHEET

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- LEGEND**
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 - SAN — SANITARY SEWER & SIZE
 - W — WATER MAIN & SIZE
 - MANHOLE
 - STORM INTAKE
 - FIRE HYDRANT
 - VALVE
 - EXISTING CONTOURS
 - PROPOSED CONTOURS
 - SILT FENCE OR APPROVED FILTRATION SOCK



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8-5-2004

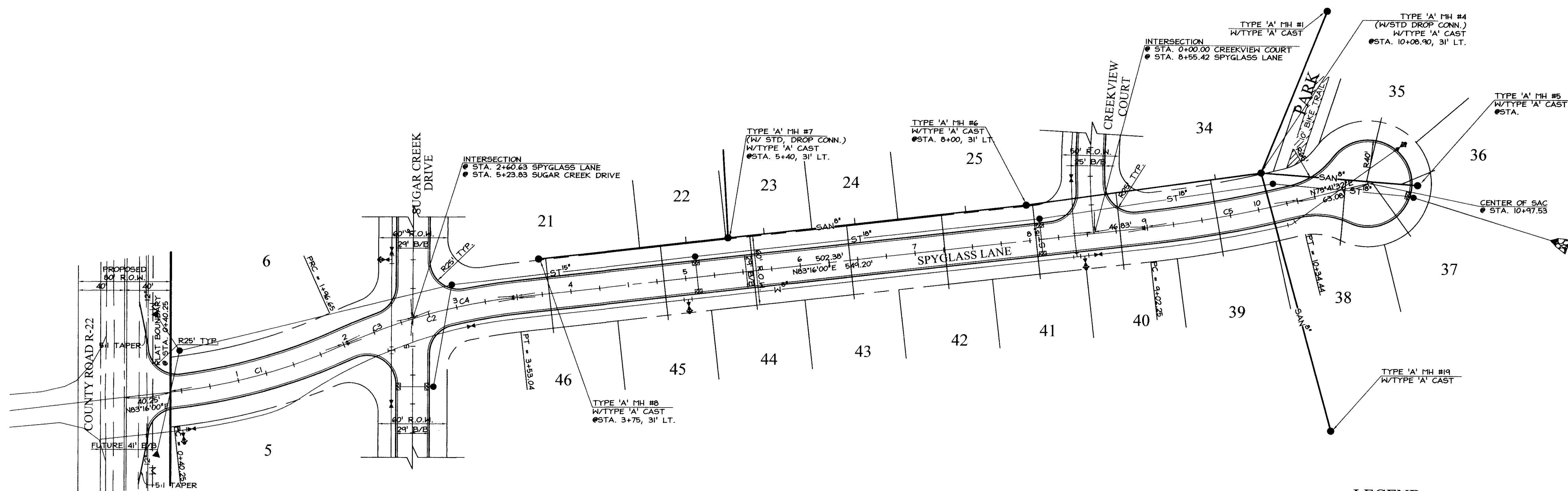
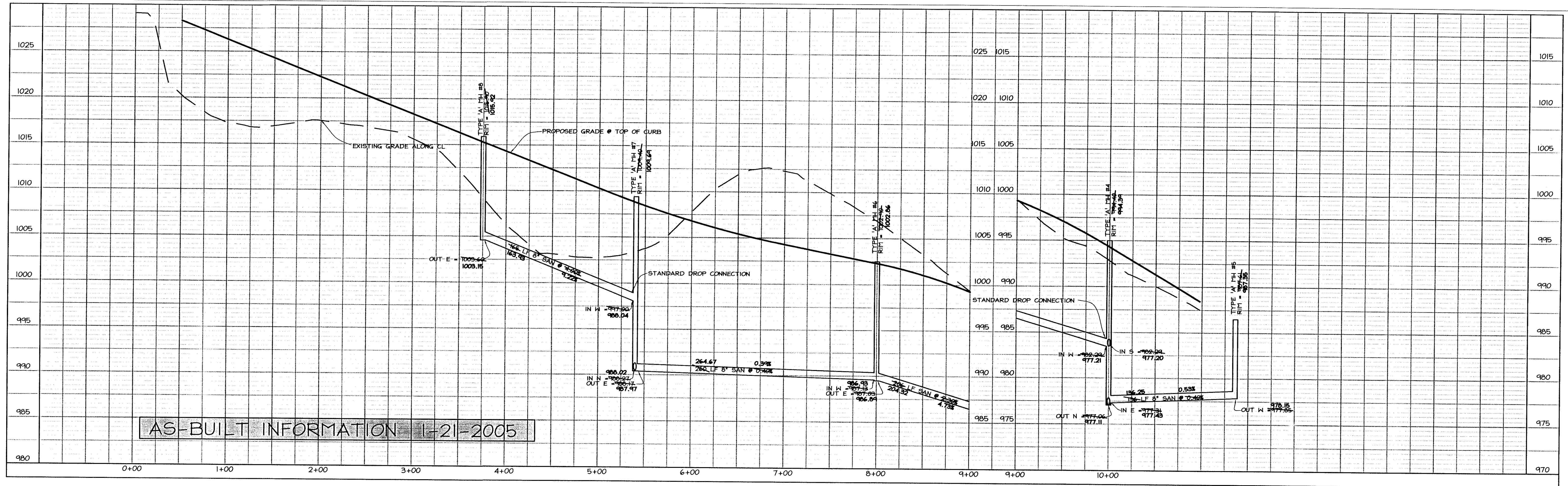
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SHEET
2 OF 22

GRADING PLAN
SPYGLASS



LEGEND

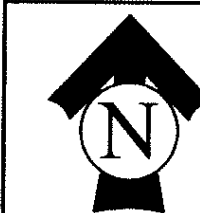
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— SAN 8"	PLAT BOUNDARY
— ST 10"	SANITARY SEWER # SIZE
— W 10"	STORM SEWER # SIZE
— W 12"	WATER MAIN # SIZE
○	MANHOLE
●	STORM INTAKE
▽	FIRE HYDRANT
▽	VALVE
▽	FLARED END SECTION



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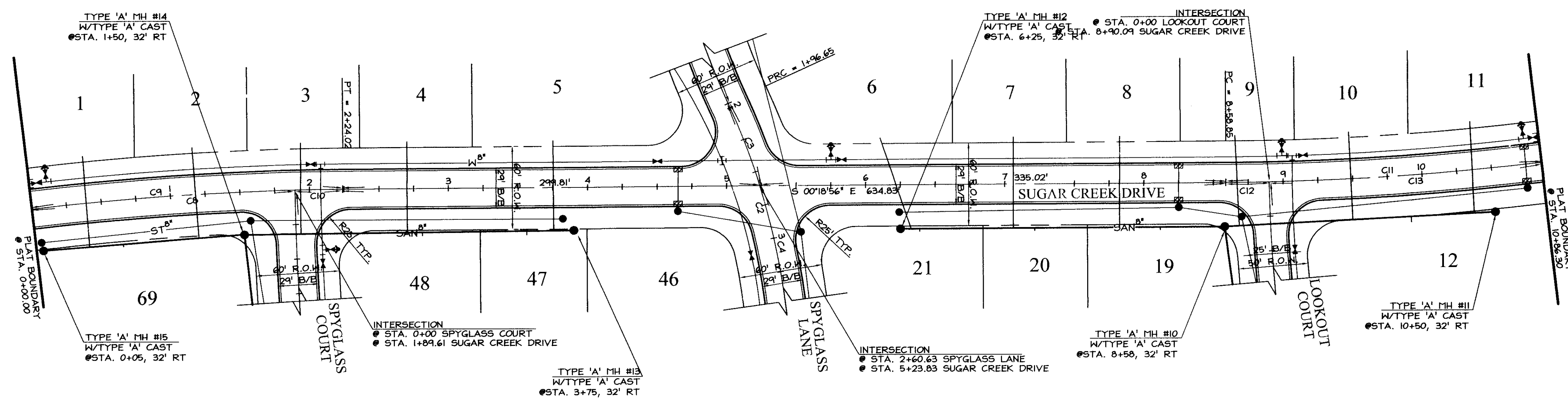
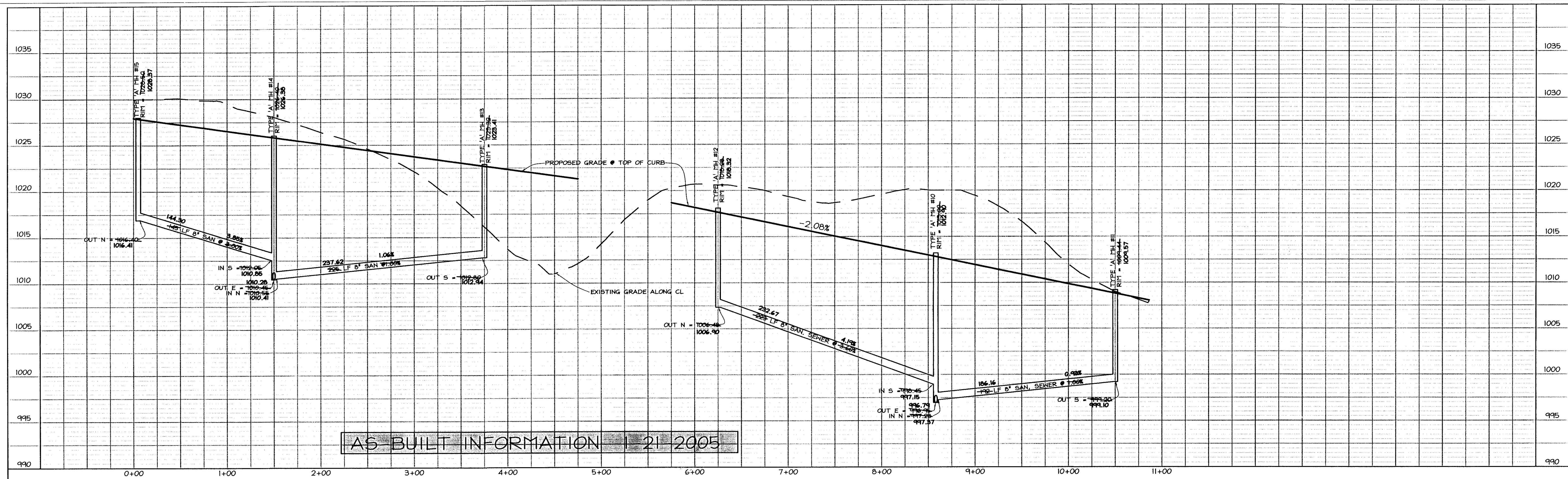
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AS-BUILTS: 1-21-2005

SANITARY SEWER
Spyglass Lane

JOB NUMBER
CC
0239

SHEET
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LEGEND

EXISTING/PROPOSED	
	PLAT BOUNDARY
	SANITARY SEWER # SIZE
	STORM SEWER # SIZE
	WATER MAIN # SIZE
	MANHOLE
	STORM INTAKE
	FIRE HYDRANT
	VALVE
	FLARED END SECTION

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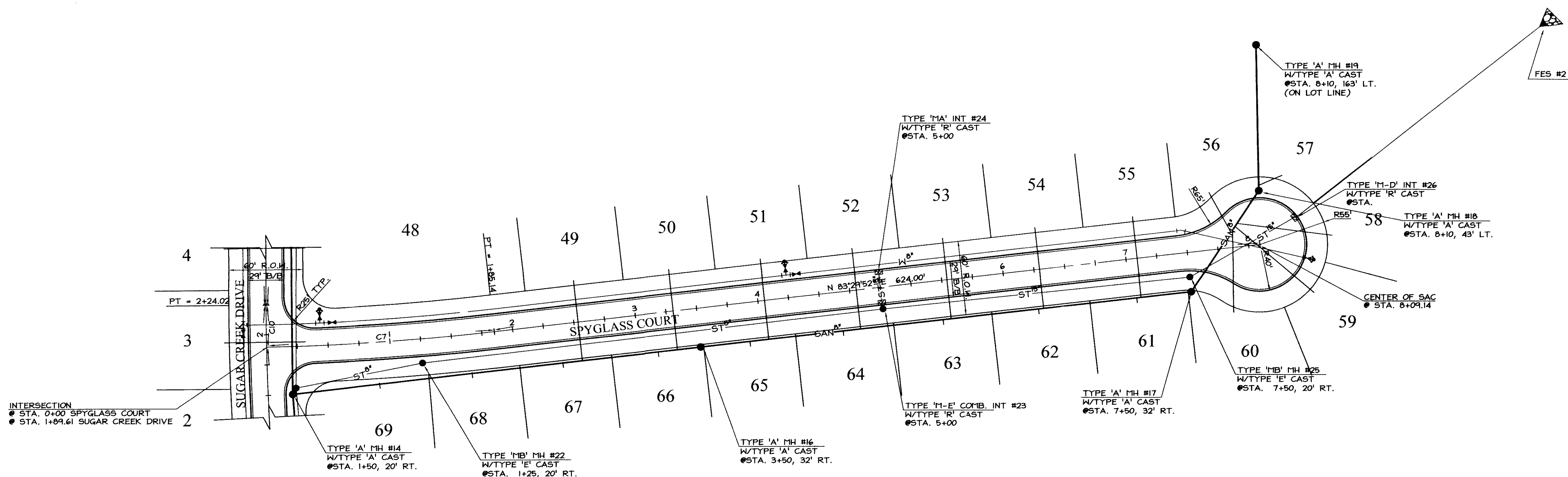
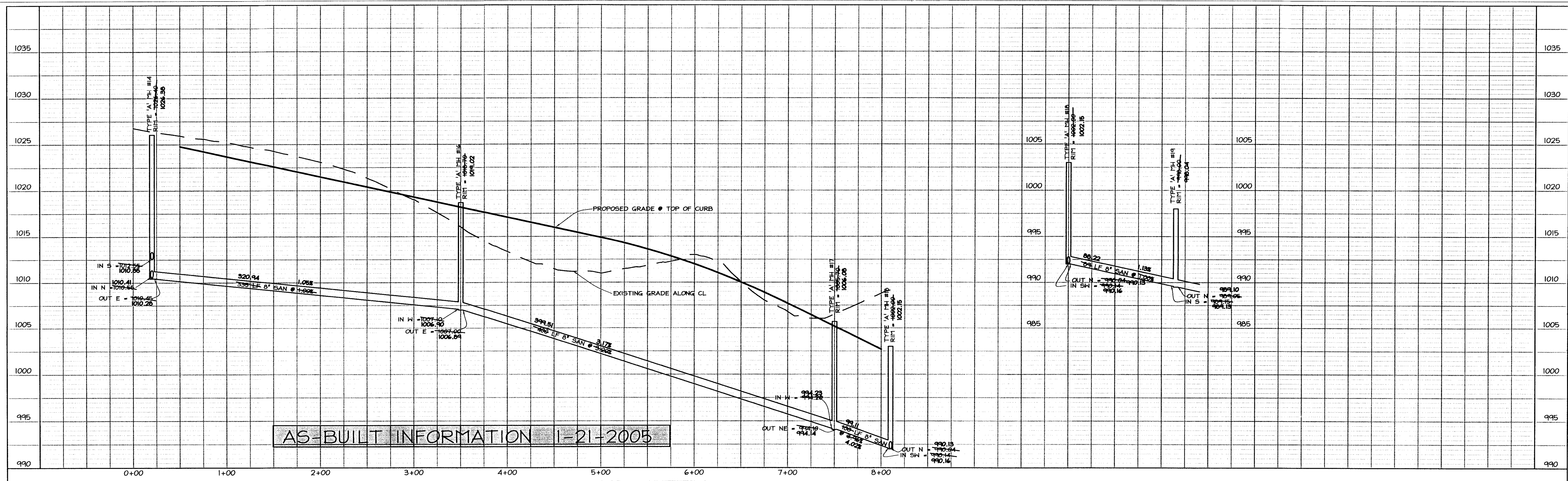


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SANITARY SEWER
 Sugar Creek Drive

JOB NUMBER
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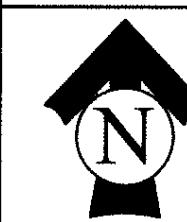
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EXISTING/PROPOSED

- SAN" — PLAT BOUNDARY
- ST" — SANITARY SEWER # SIZE
- W" — STORM SEWER # SIZE
- W" — WATER MAIN # SIZE
- — MANHOLE
- — STORM INTAKE
- ▽ — FIRE HYDRANT
- ▽ — VALVE
- ▽ — FLARED END SECTION

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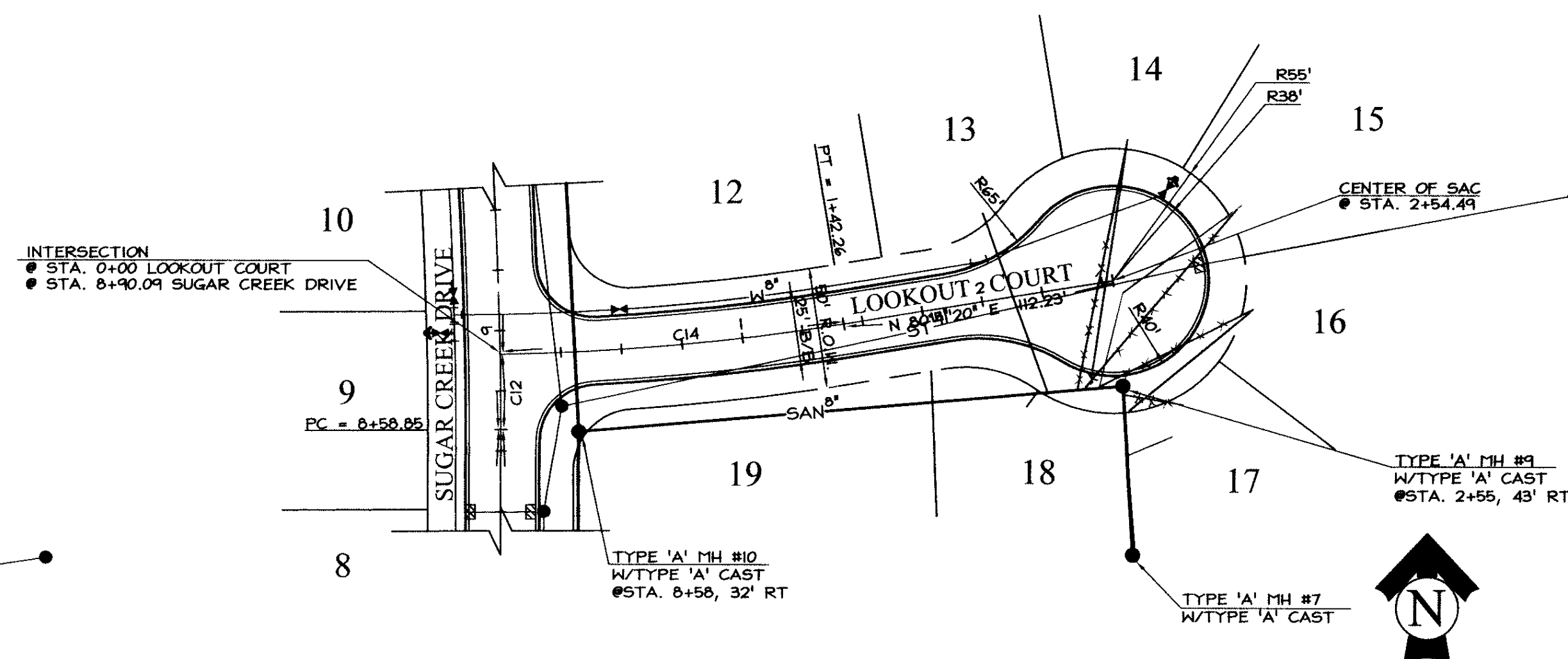
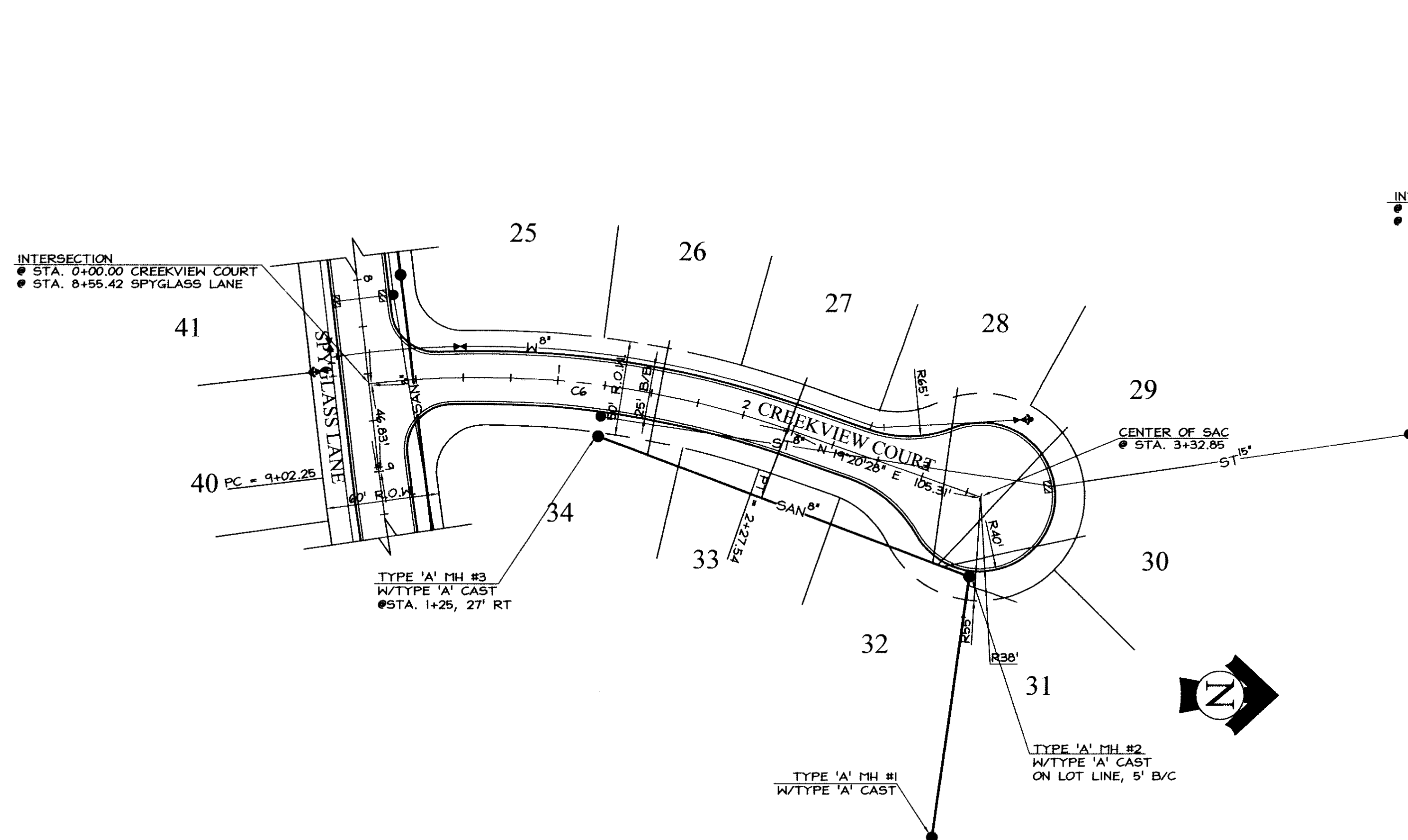
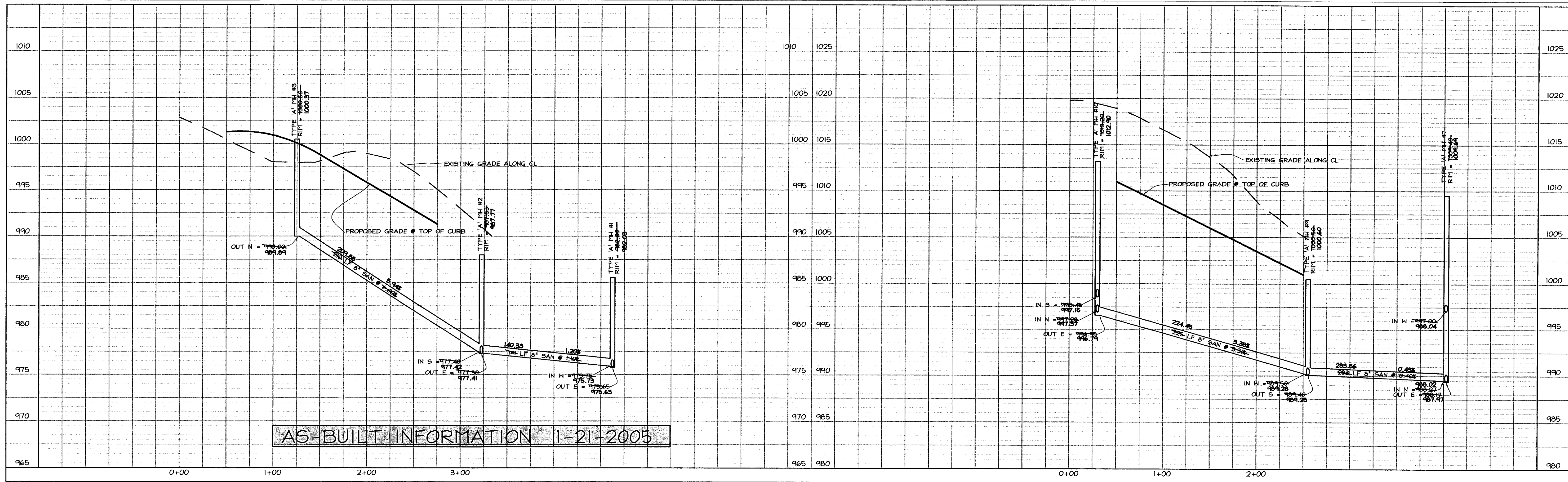
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SANITARY SEWER
Spyglass Court

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SHEET
5 OF 22





LEGEND

EXISTING/PROPOSED	PLAT BOUNDARY
— SAN 8"	SANITARY SEWER # SIZE
— ST 8"	STORM SEWER # SIZE
— W 8"	WATER MAIN # SIZE
●	MANHOLE
●	STORM INTAKE
●	FIRE HYDRANT
●	VALVE
▼	FLARED END SECTION

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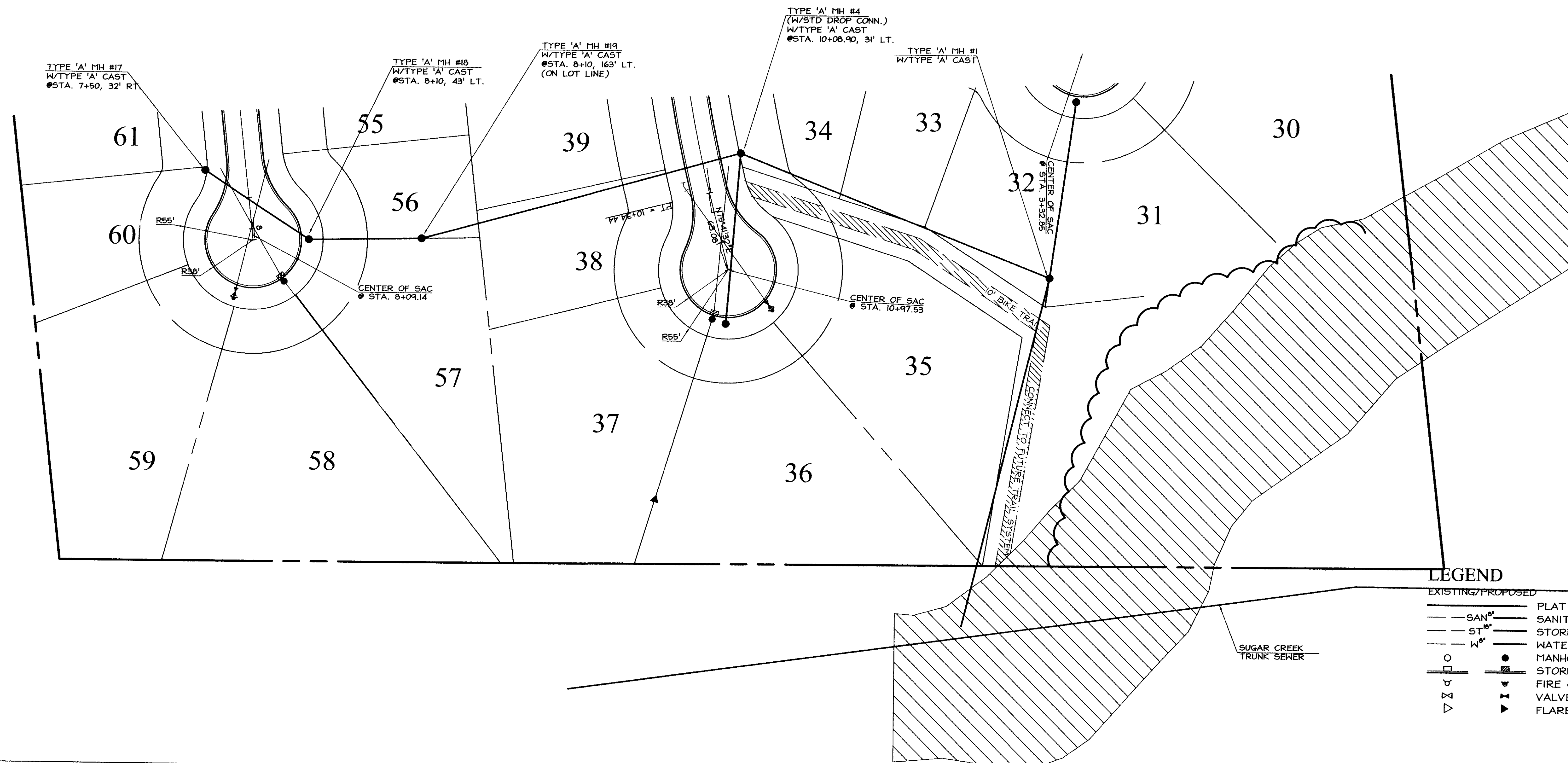
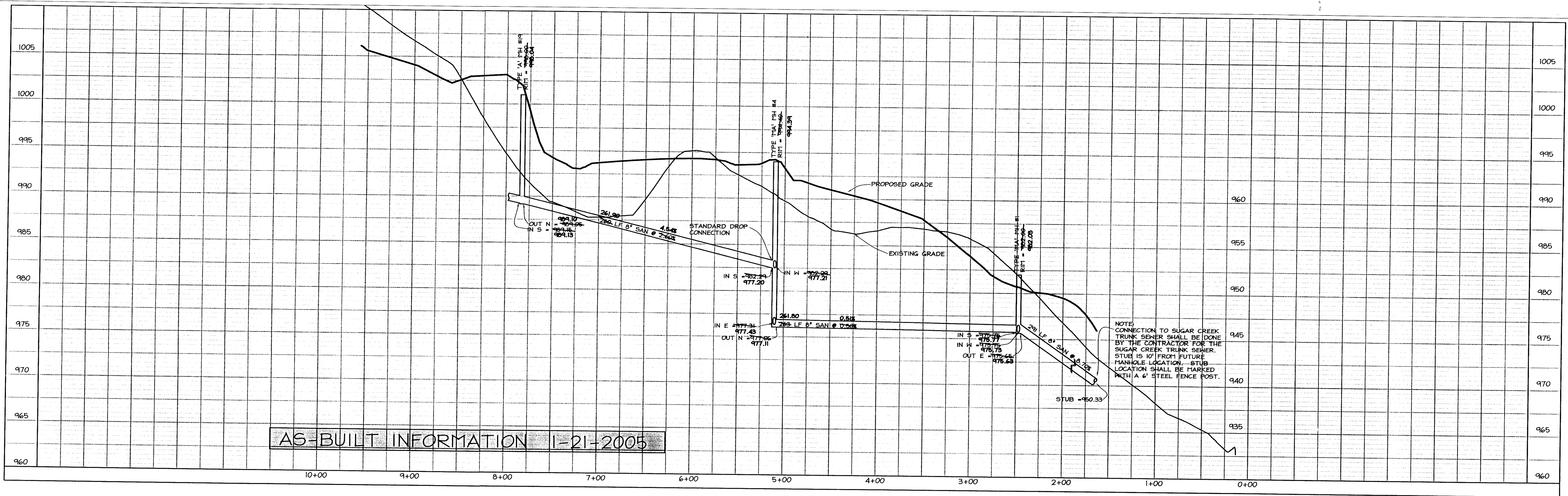
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SANITARY SEWER
 Creekview & Lookout Court

SHEET
 6 OF 22



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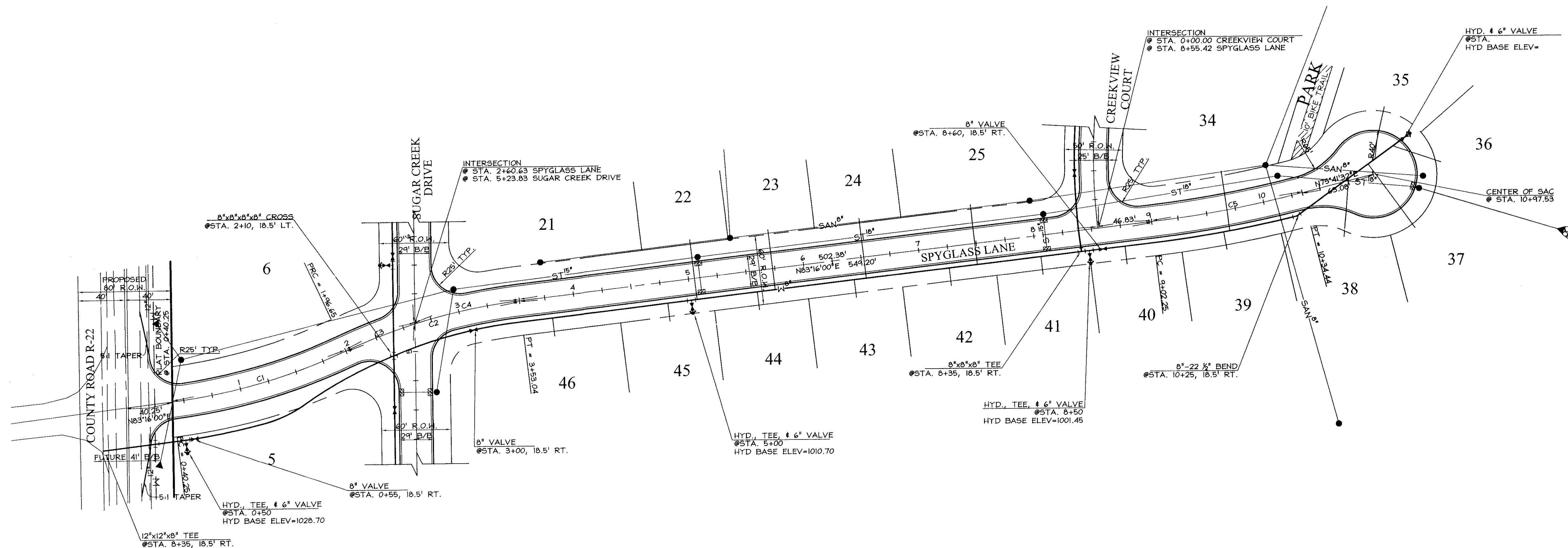
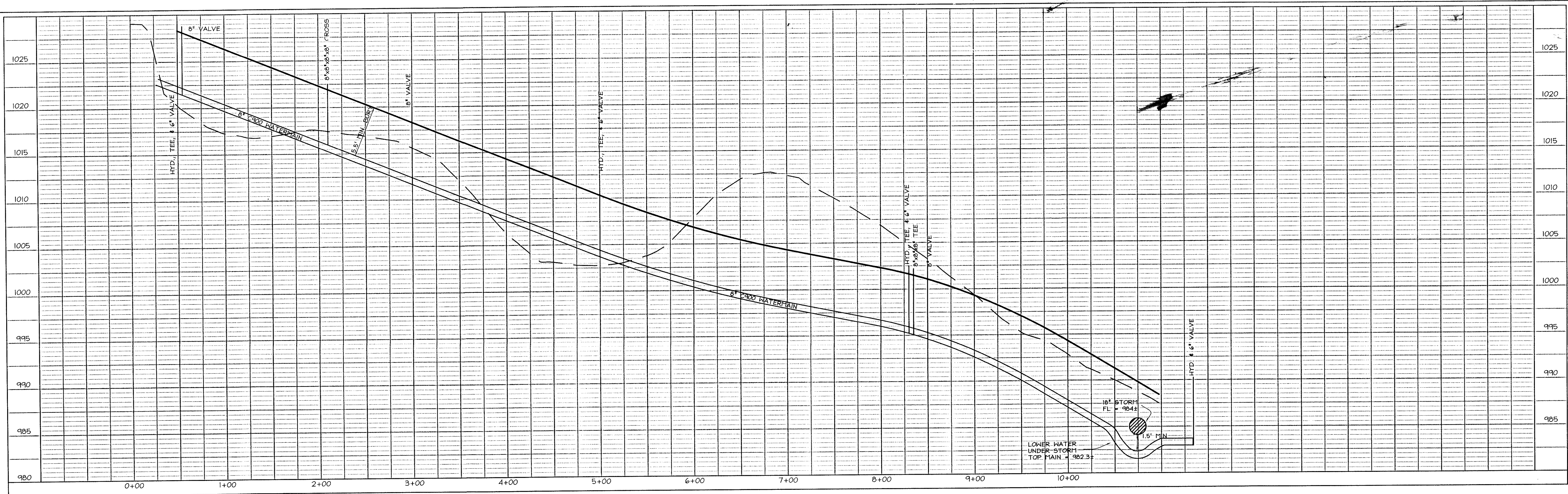
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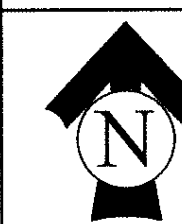
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- PLAT BOUNDARY
- SAN^{8"} — SANITARY SEWER # SIZE
- ST^{18"} — STORM SEWER # SIZE
- WM^{8"} — WATER MAIN # SIZE
- MANHOLE
- STORM INTAKE
- FIRE HYDRANT
- VALVE
- FLARED END SECTION



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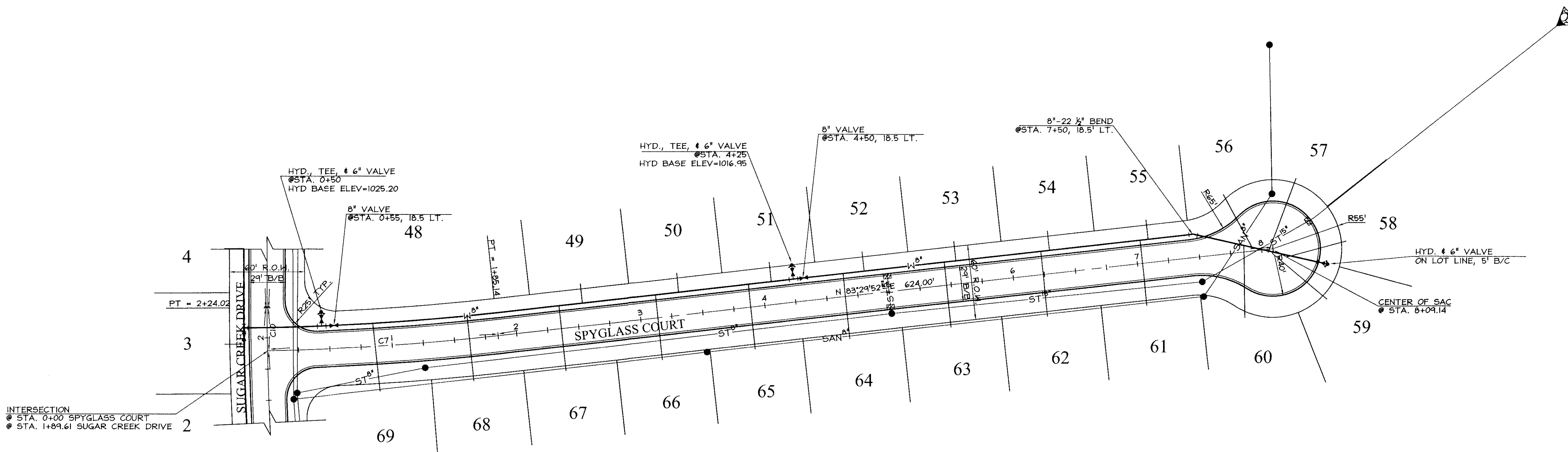
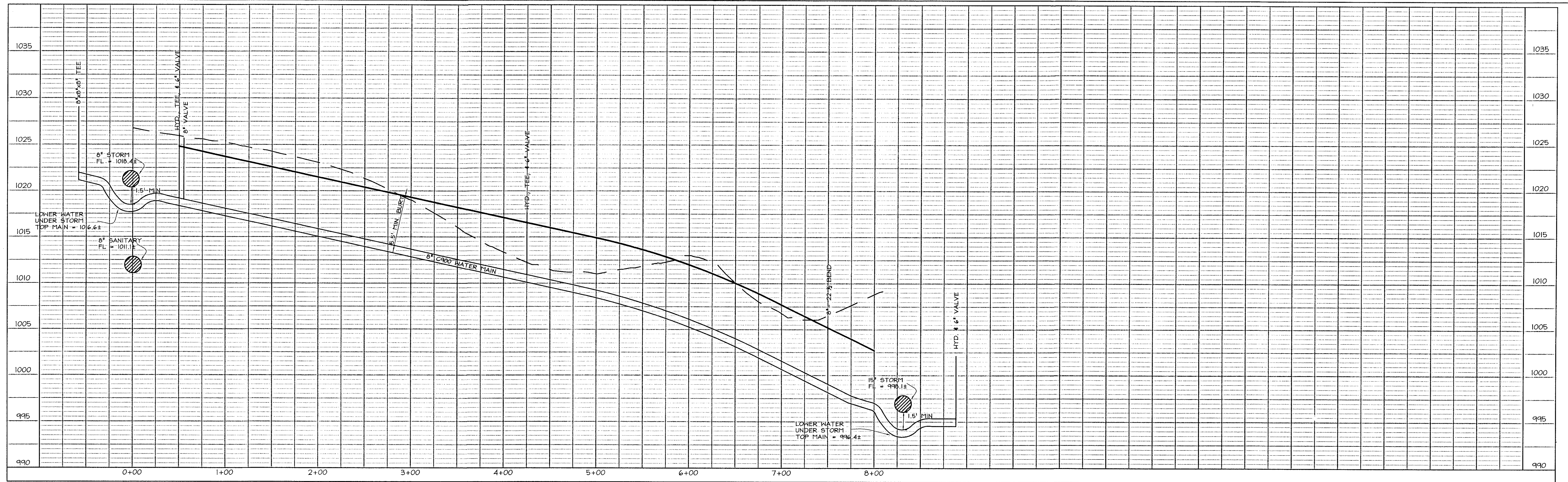
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WATER
Spyglass Lane

SHEET
8 OF 22



LEGEND

EXISTING/PROPOSED

- SAN 8" — PLAT BOUNDARY
- W 6" — SANITARY SEWER # SIZE
- ST 15" — STORM SEWER # SIZE
- ST 6" — WATER MAIN # SIZE
- — MANHOLE
- — STORM INTAKE
- ▼ — FIRE HYDRANT
- ▽ — VALVE
- ▽ — FLARED END SECTION



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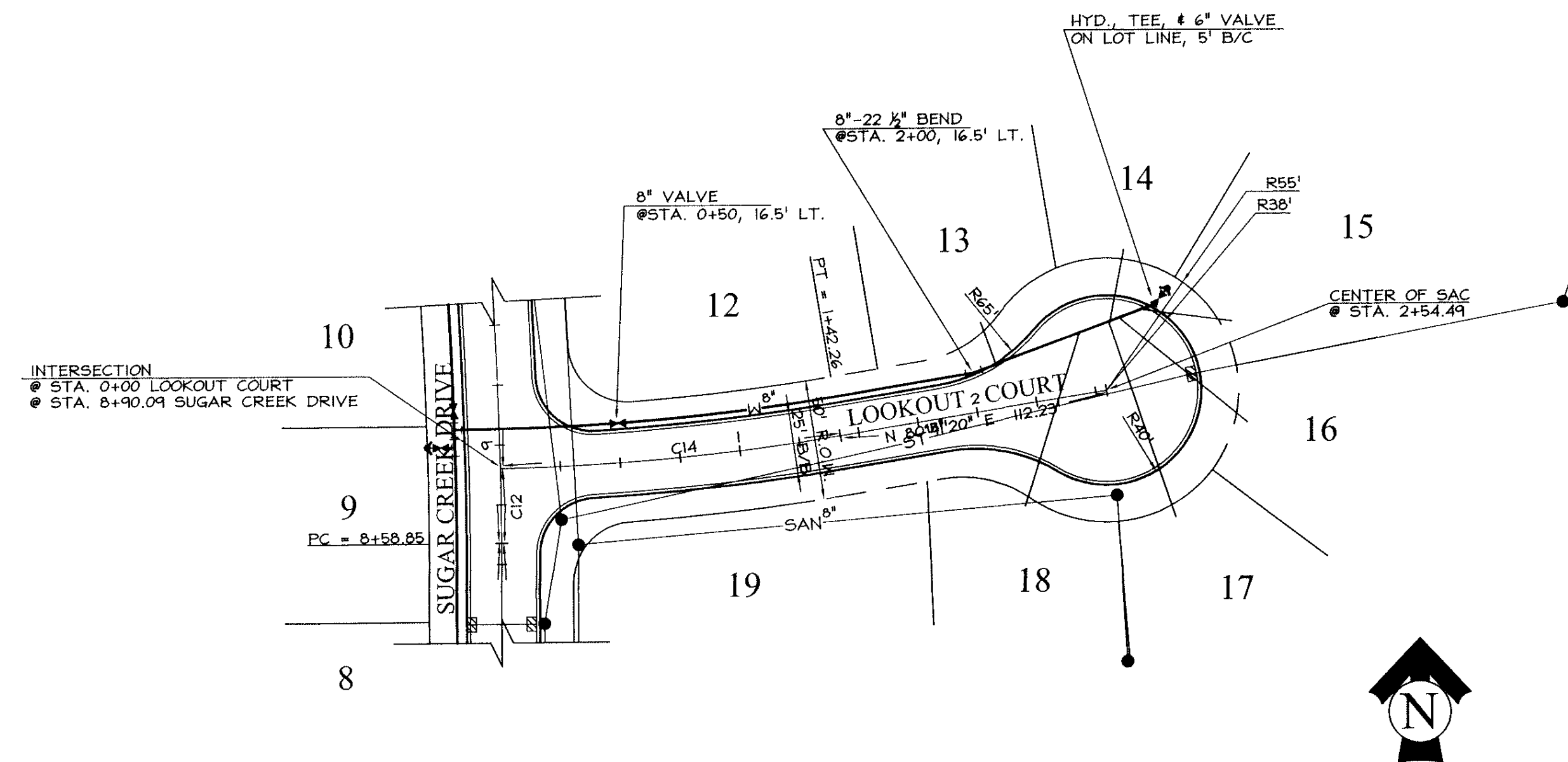
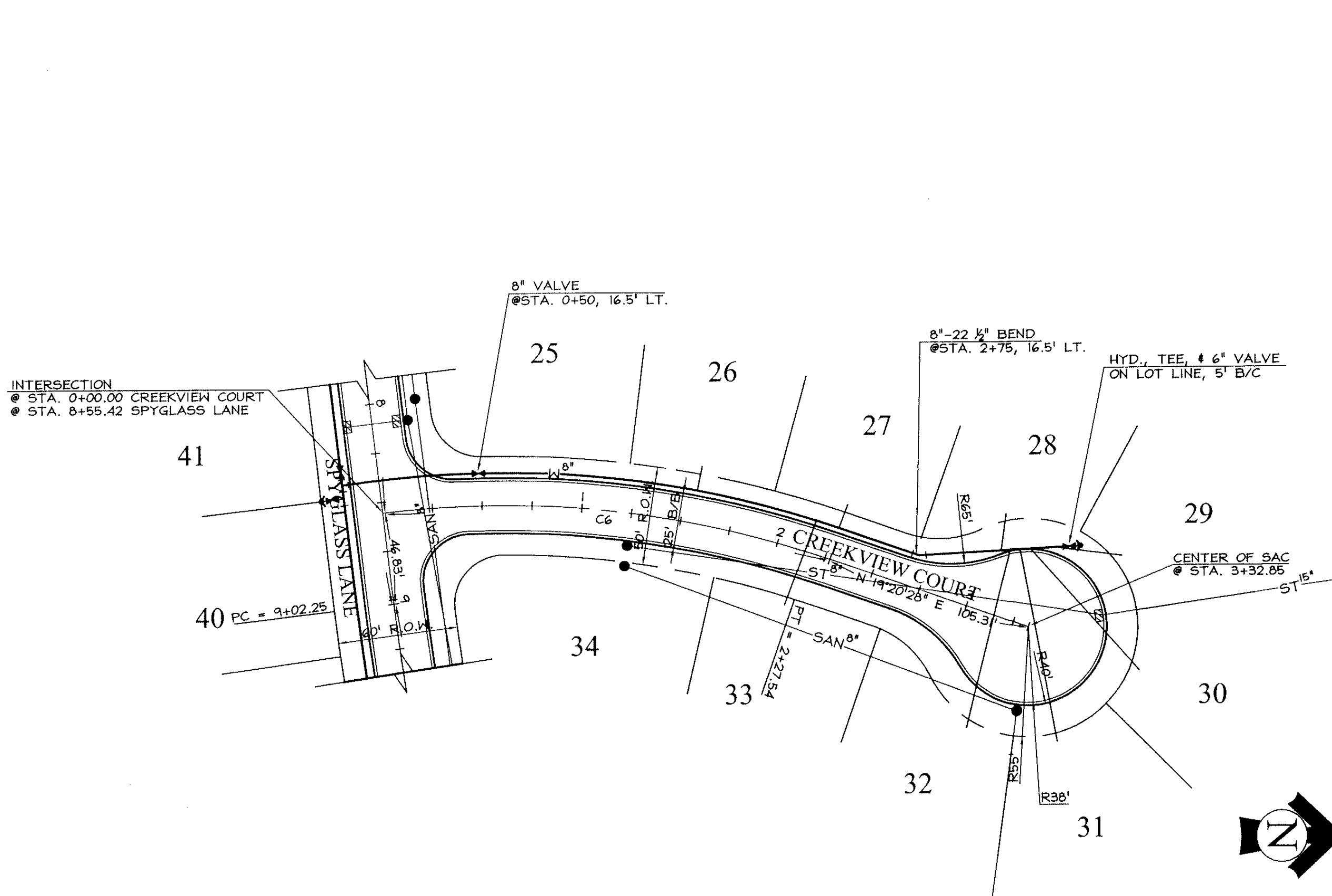
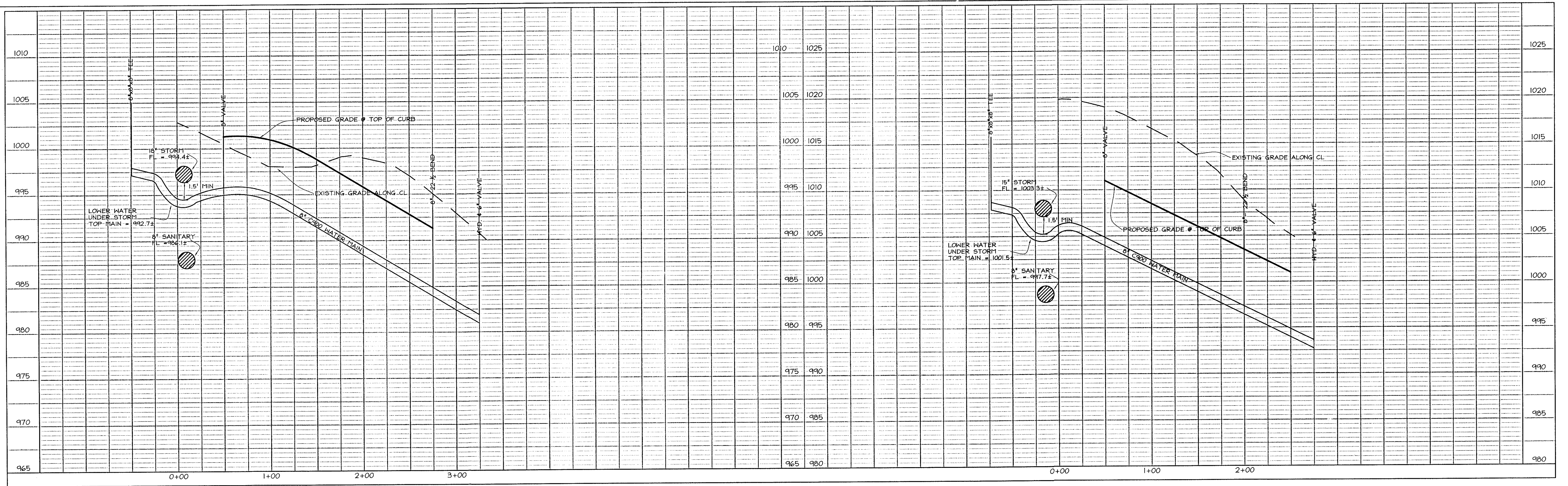
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WATER
Spyglass Court

SHEET
10 OF 22



- LEGEND**
- EXISTING/PROPOSED
- PLAT BOUNDARY
 - SAN 8" SANITARY SEWER & SIZE
 - W 8" STORM SEWER & SIZE
 - ST 16" WATER MAIN & SIZE
 - MANHOLE
 - STORM INTAKE
 - FIRE HYDRANT
 - VALVE
 - FLARED END SECTION



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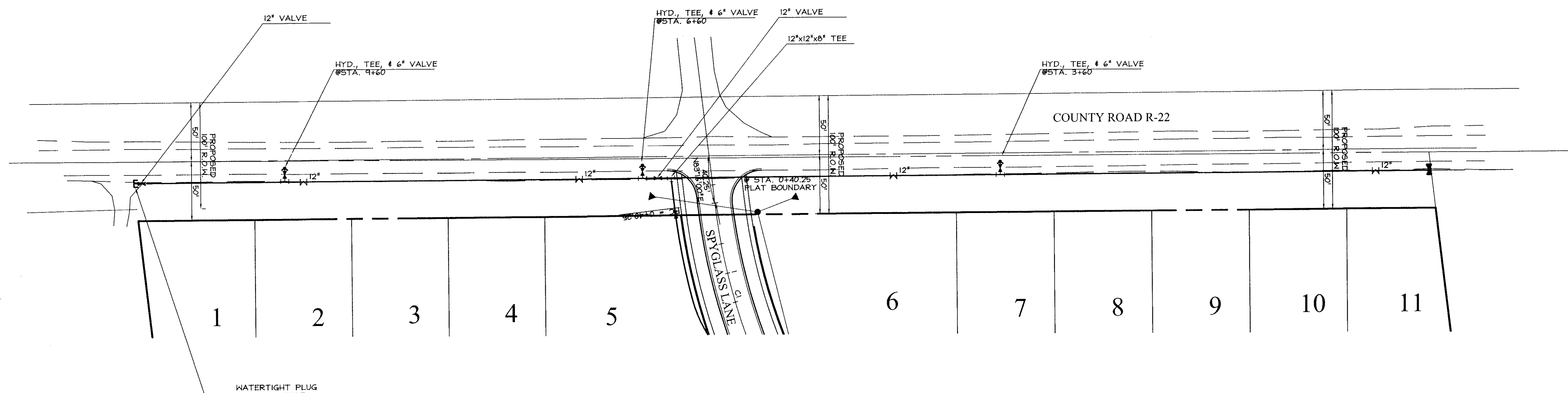
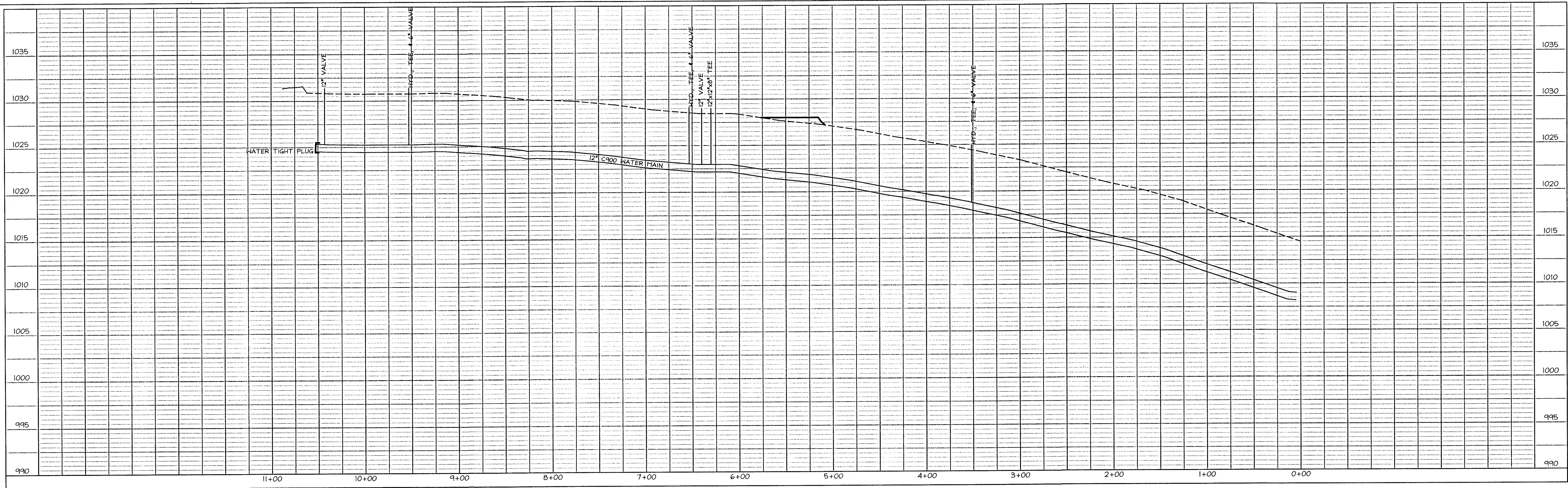
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8-5-2004

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0239

WATER
Creekview & Lookout Court

SHEET
11 OF 22



LEGEND

EXISTING/PROPOSED

- PLAT BOUNDARY
- SAN^{8"} — SANITARY SEWER # SIZE
- W^{8"} — STORM SEWER # SIZE
- ST^{12"} — WATER MAIN # SIZE
- MANHOLE
- STORM INTAKE
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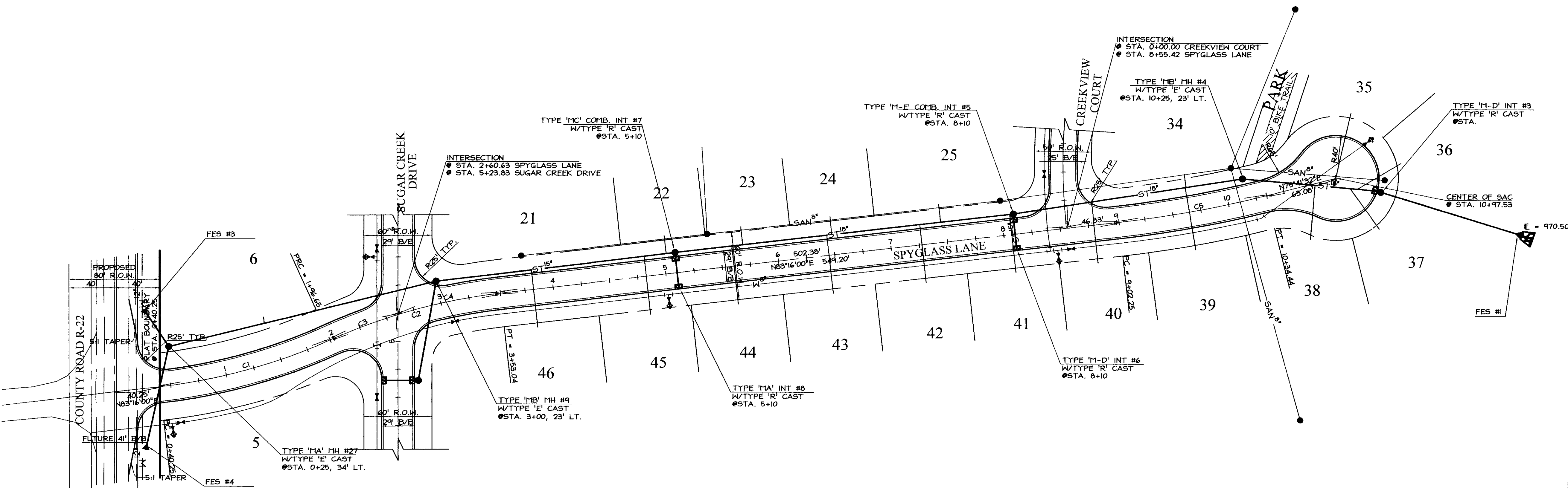
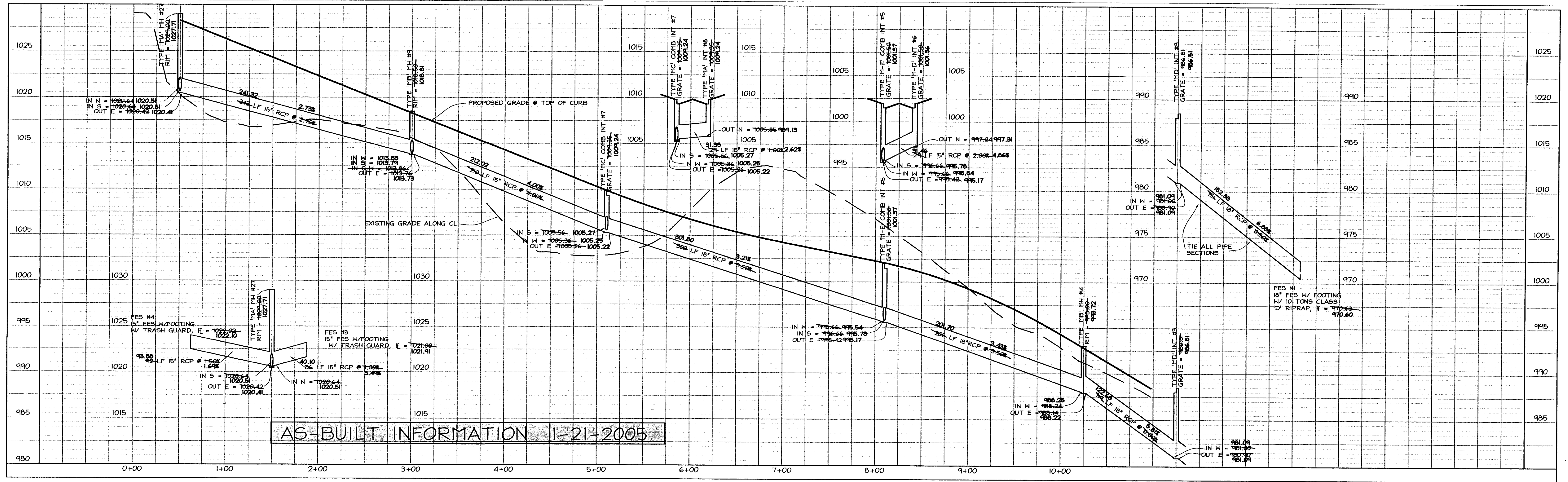
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WATER
COUNTY ROAD R-22

JOB NUMBER

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12 OF 22



LEGEND

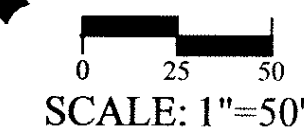
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- ▽ FLARED END SECTION



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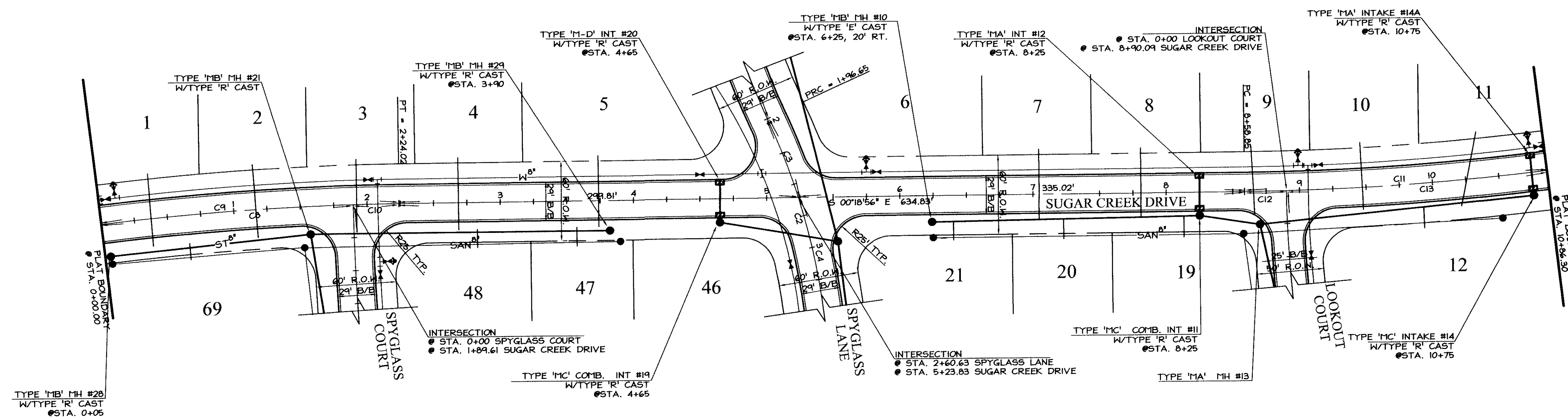
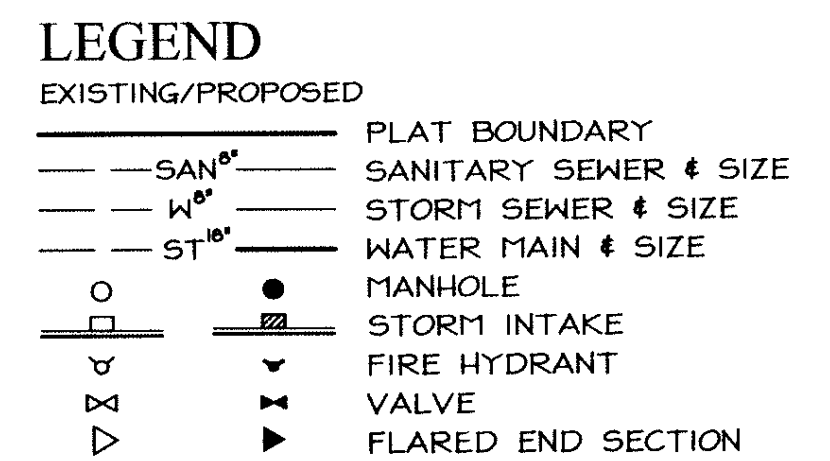
AS-BUILTS: 1-21-2005

STORM SEWER
Spyglass Lane

JOB NUMBER

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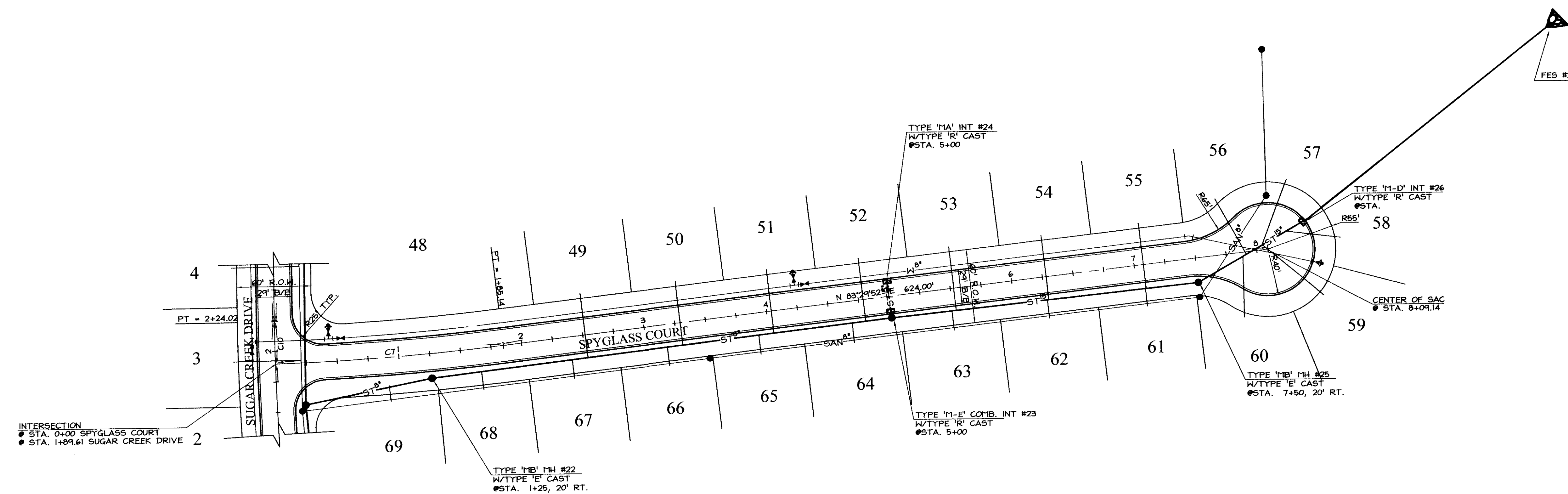
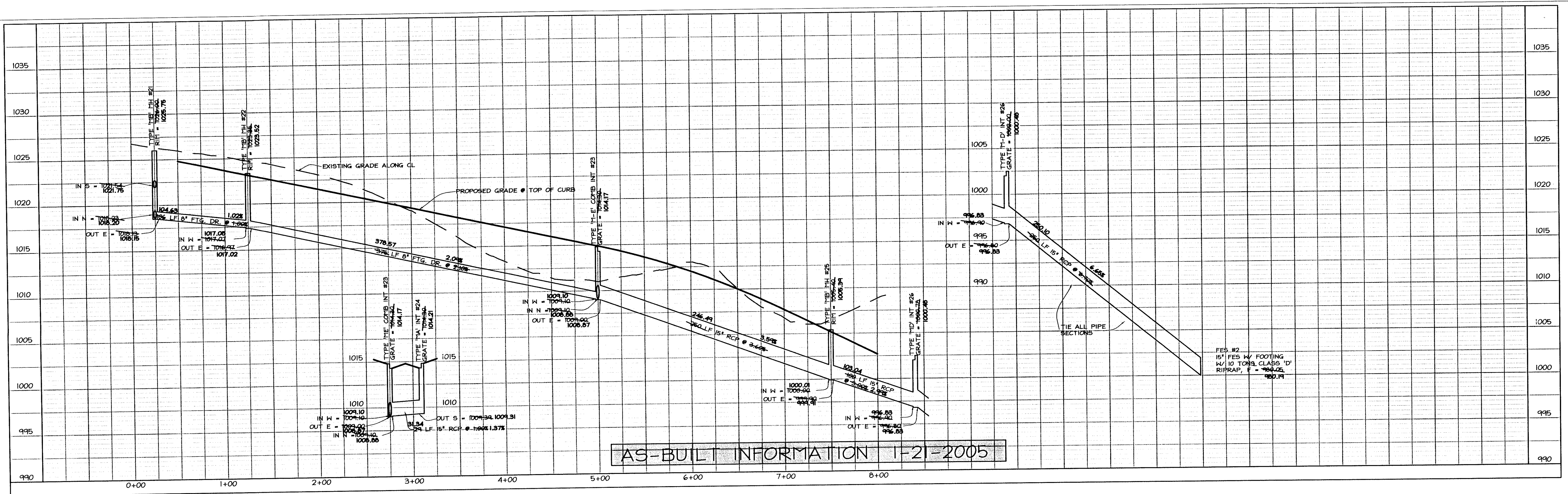
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AS-BUILTS: 1-21-2005

STORM SEWER
Sugar Creek Drive

DB NUMBER
CC
0239
SHEET
4 OF 22



LEGEND

EXISTING/PROPOSED

- PLAT BOUNDARY
- SAN" SANITARY SEWER # SIZE
- W" STORM SEWER # SIZE
- ST" WATER MAIN # SIZE
- MANHOLE
- STORM INTAKE
- ▲ FIRE HYDRANT
- ▼ VALVE
- ▶ FLARED END SECTION



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& ASSOCIATES, L.L.C.
CIVIL ENGINEERS

2167 GRAND AVENUE, WEST DES MOINES, IOWA 50265
PHONE: (515) 224-1344 FAX: (515) 224-1345

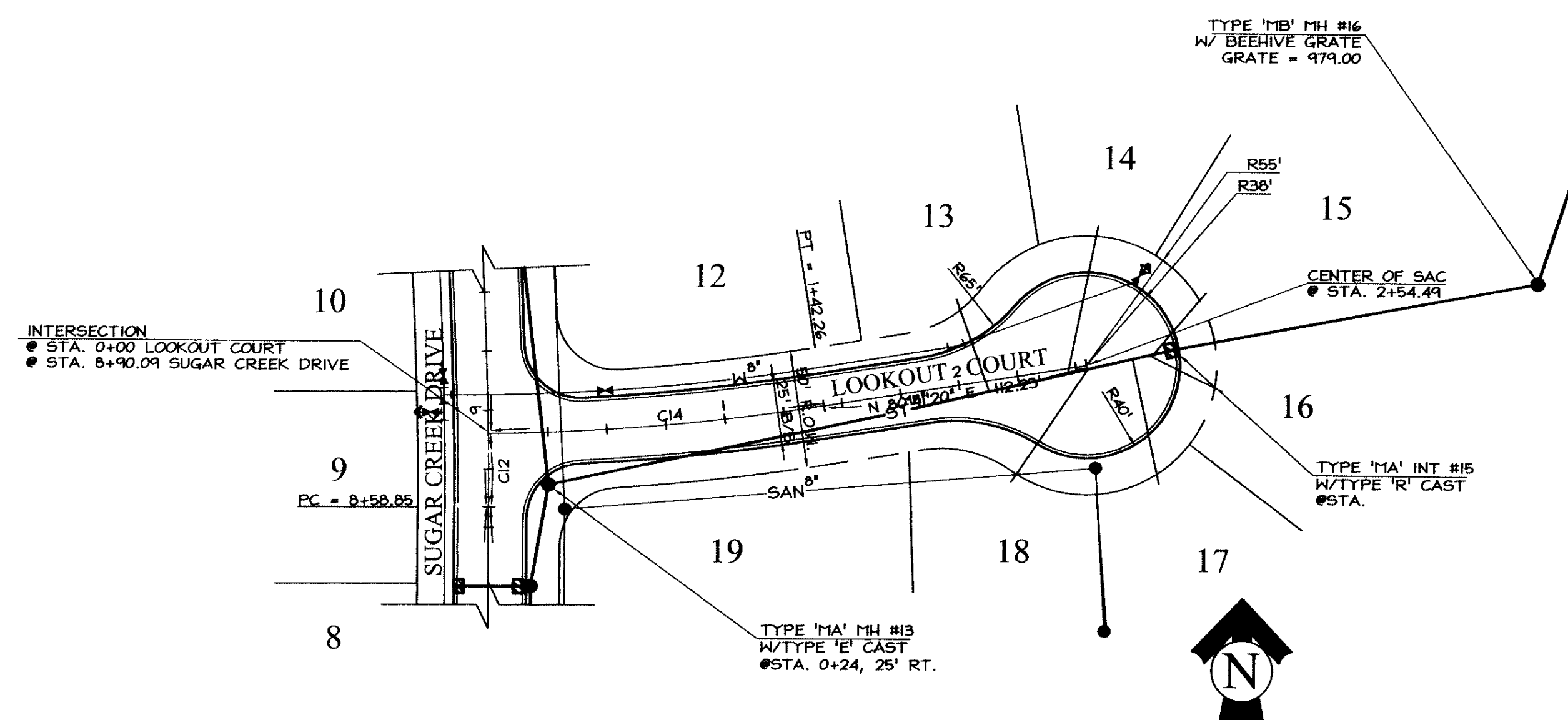
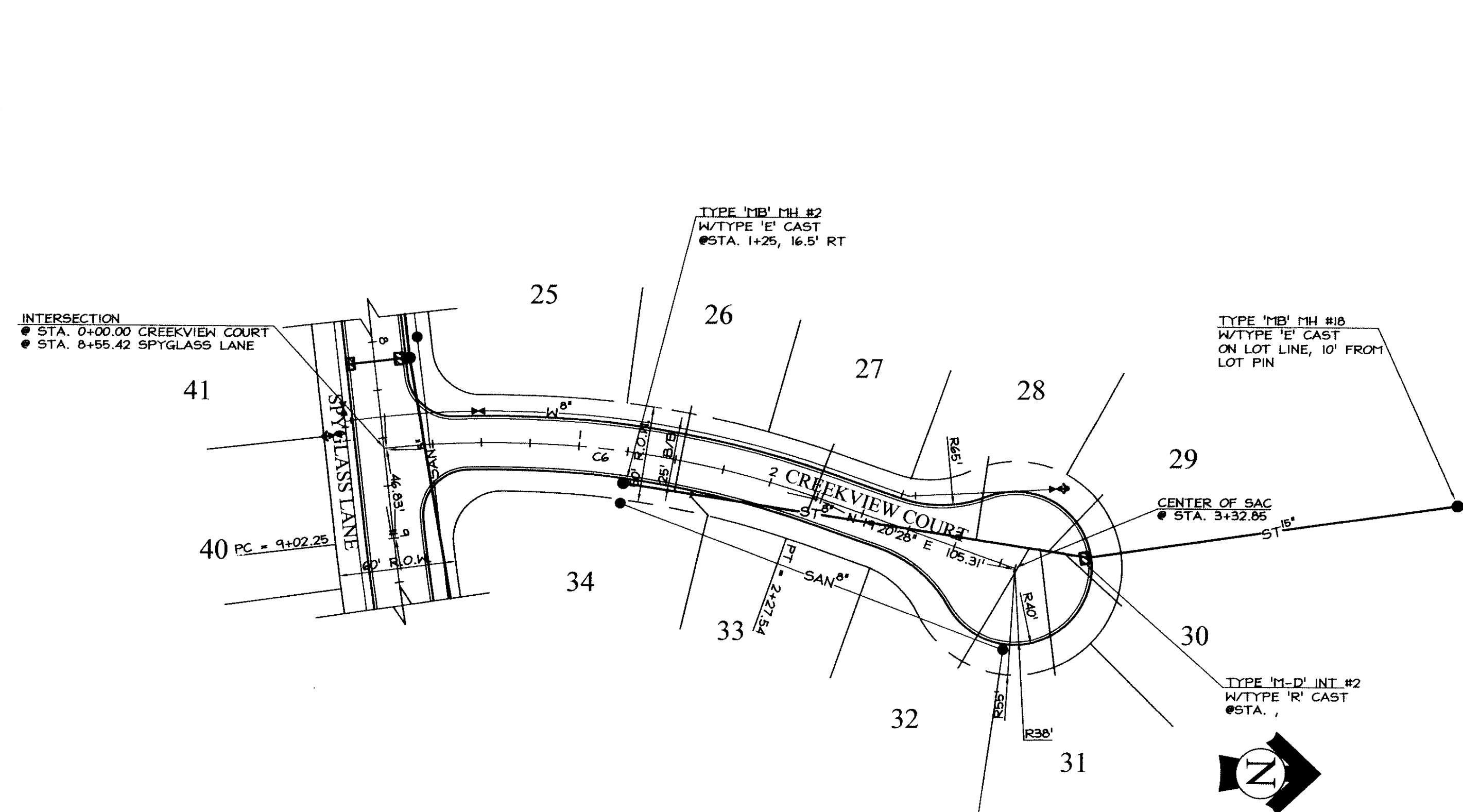
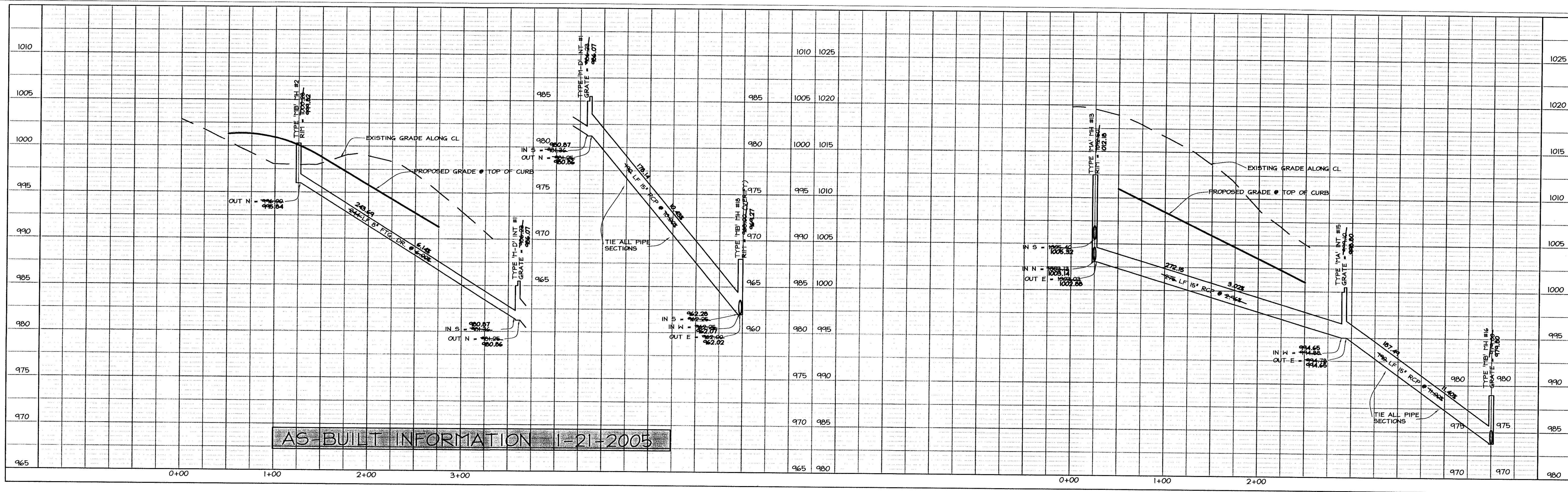


SCALE: 1"=50'

DATE: 7-22-2004
REVISIONS: 7-30-2004

STORM SEWER
Spyglass Court

JOB NUMBER
CC
0239
SHEET
15 OF 22



LEGEND

EXISTING/PROPOSED	
—	PLAT BOUNDARY
— SAN 8"	SANITARY SEWER # SIZE
— W 8"	STORM SEWER # SIZE
— ST 18"	WATER MAIN # SIZE
○	MANHOLE
●	STORM INTAKE
▼	FIRE HYDRANT
▽	VALVE
△	FLARED END SECTION



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DATE: 7-22-2004
 REVISIONS: 7-30-2004
 8-5-2004

SCALE: 1"=50'

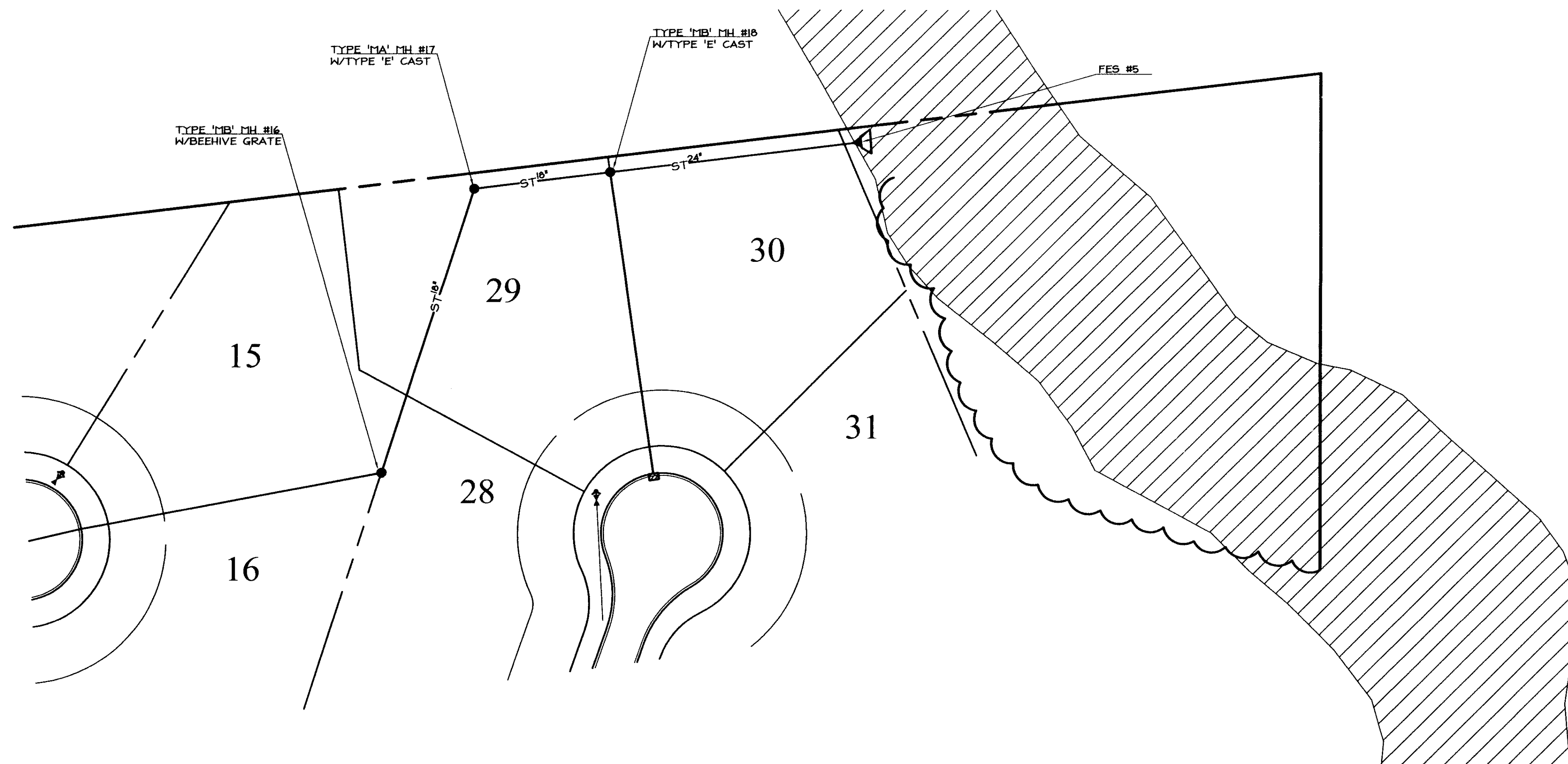
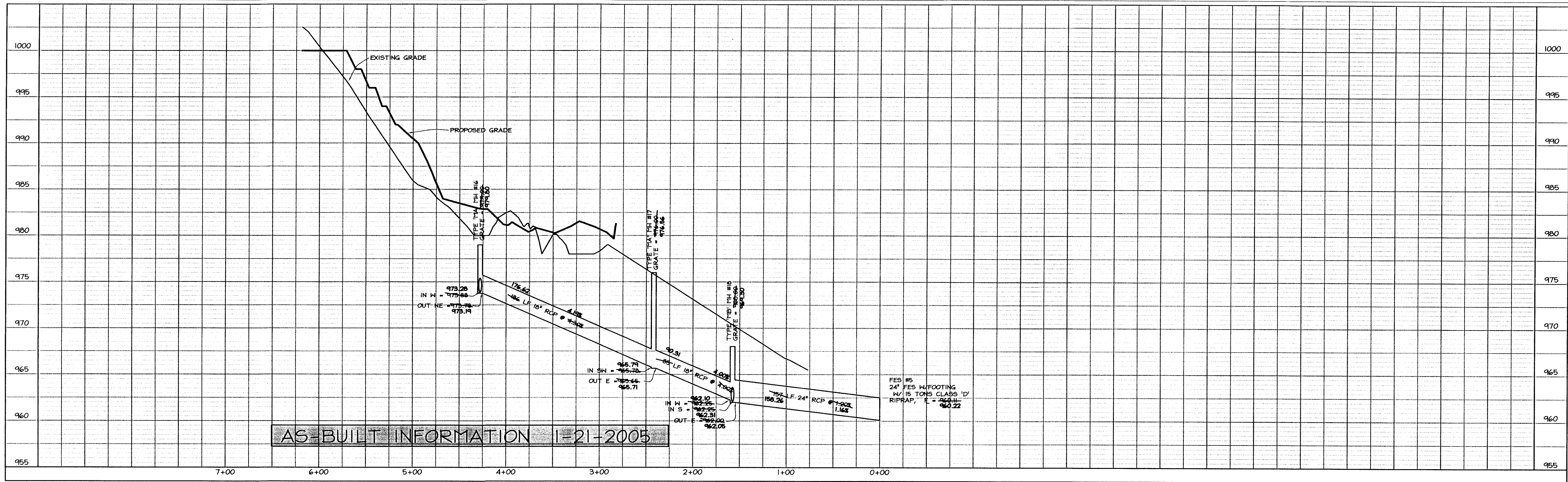
AS-BUILTS: 1-21-2005

STORM SEWER
Creekview & Lookout Court

JOB NUMBER

CC
0239

SHEET
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- LEGEND**
- EXISTING/PROPOSED
- PLAT BOUNDARY
 - SAN 18\"/>



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SCALE: 1"=50'

DATE: 7-22-2004
REVISIONS: 7-30-2004

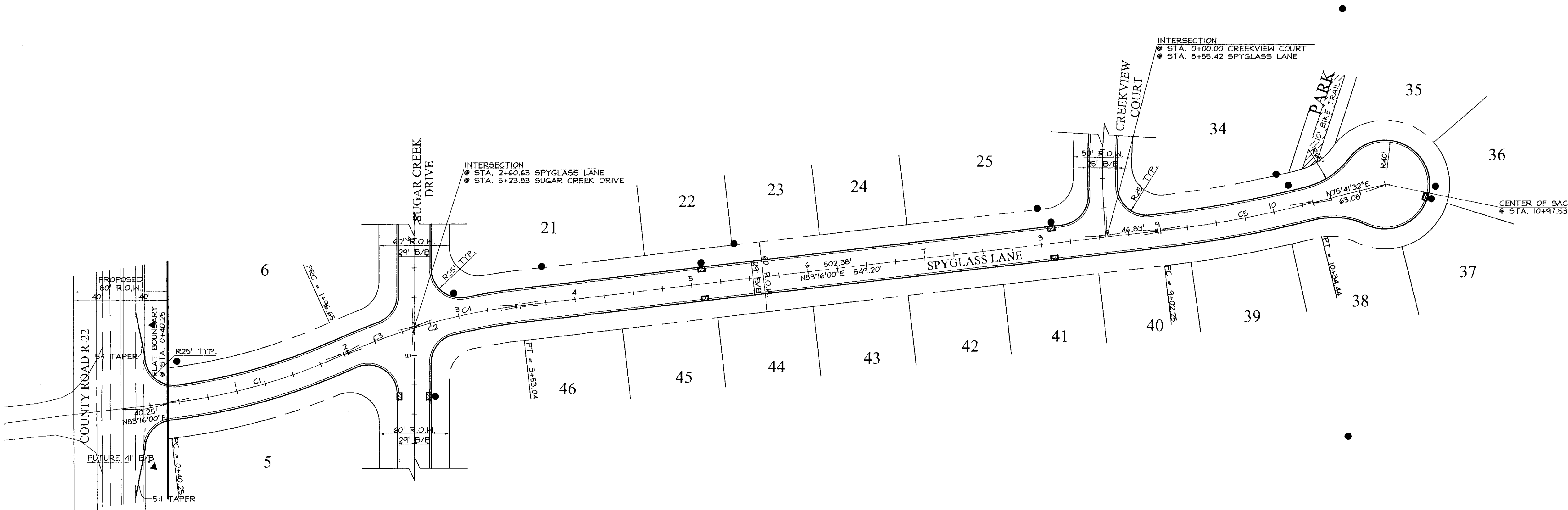
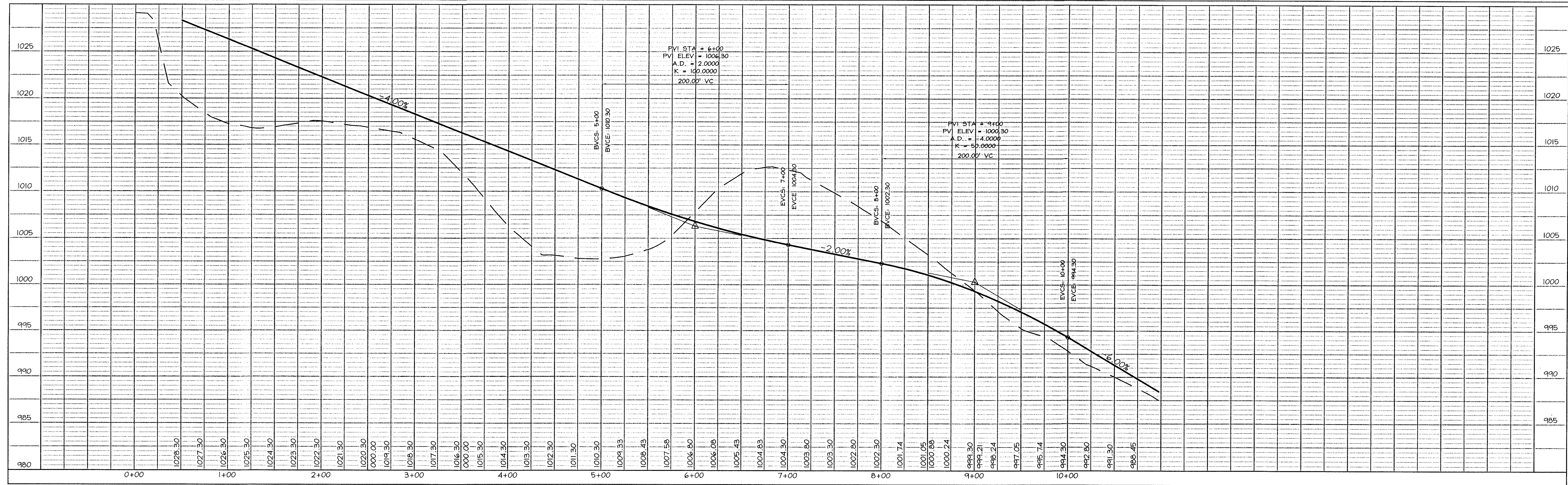
AS-BUILTS: 1-21-2005

STORM SEWER
North Outlet

JOB NUMBER

CC
0239

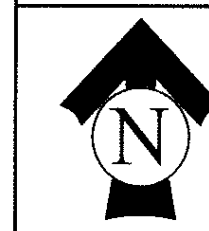
SHEET
17 OF 22



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DATE: 7-22-2004
 REVISIONS: 7-30-2004



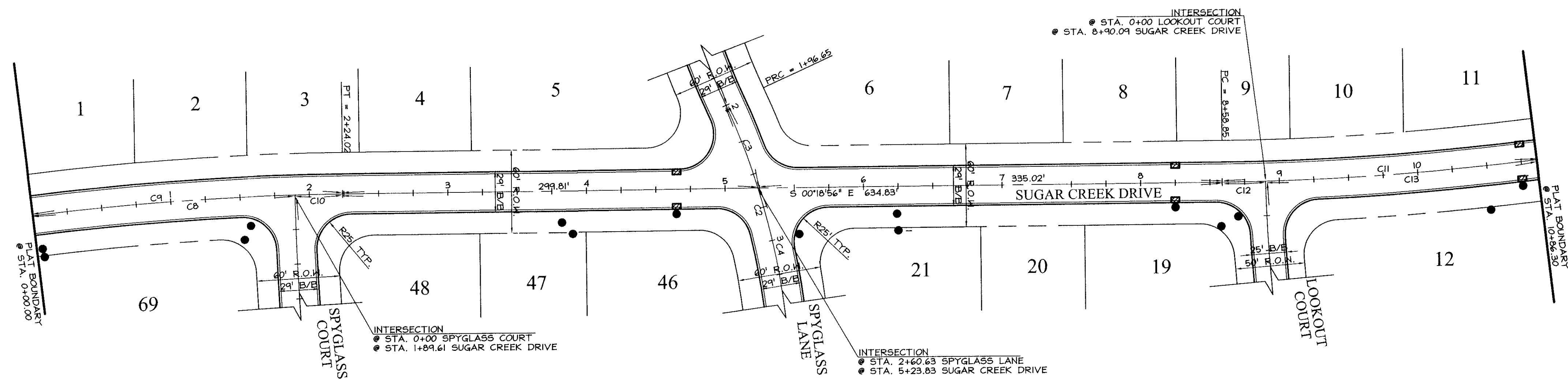
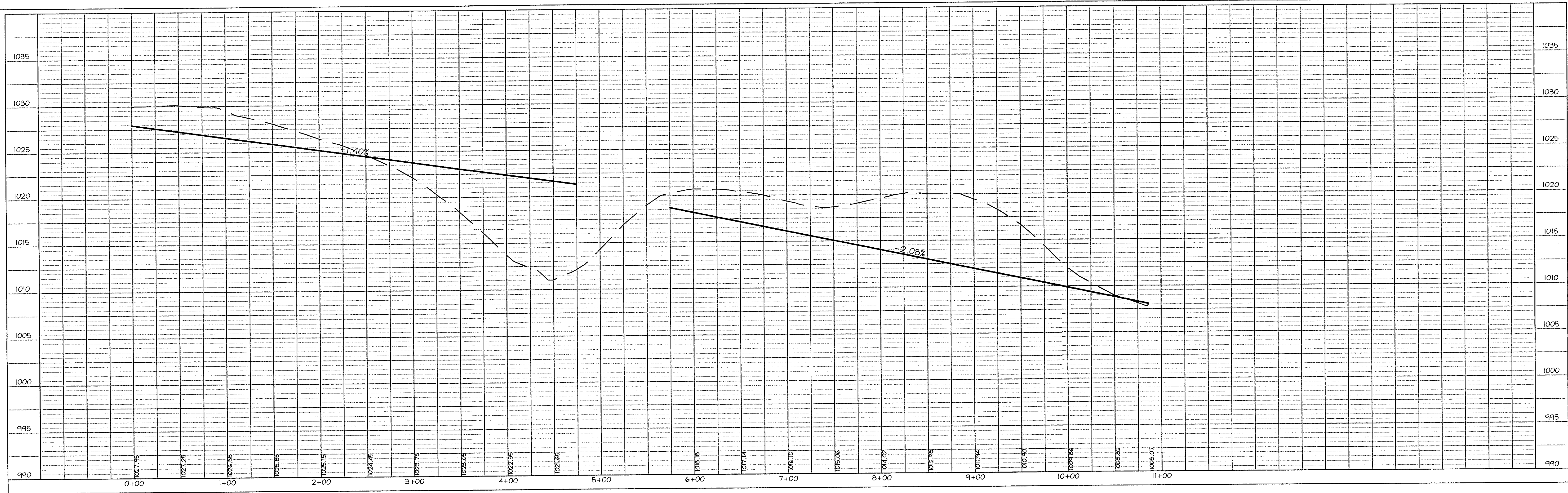
SCALE: 1"=50'

AS-BUILTS: 1-21-2005

PAVING
 Spyglass Lane

JOB NUMBER
CC 0239

SHEET
 18 OF 22



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CIVIL ENGINEERS

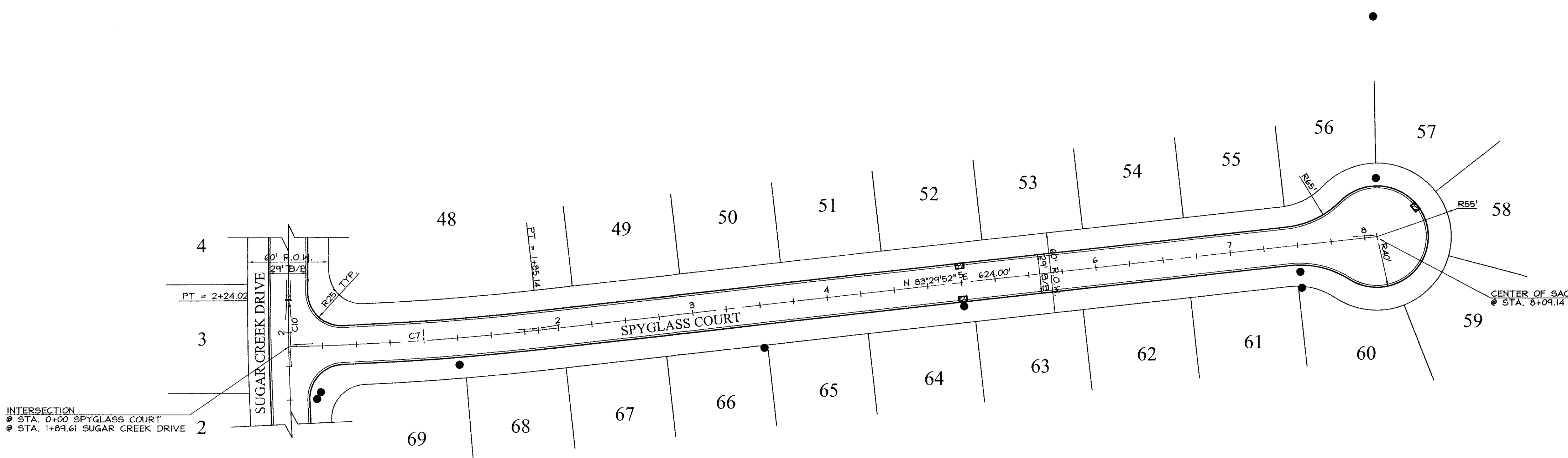
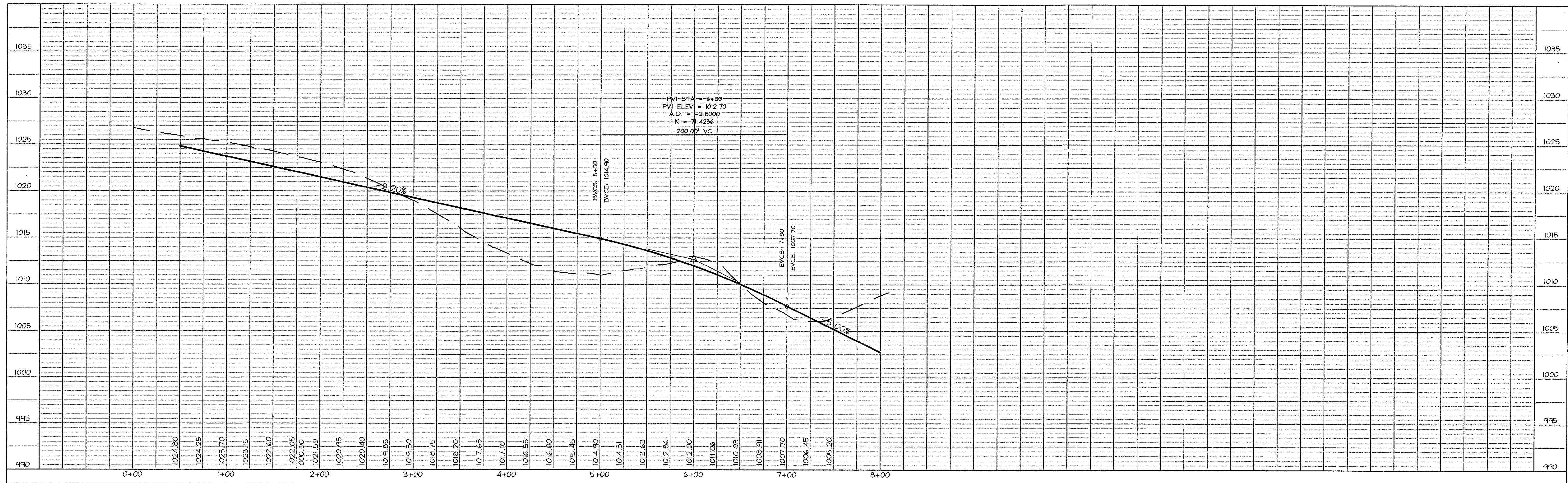
2167 GRAND AVENUE, WEST DES MOINES, IOWA 50265
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PAVING
Sugar Creek Drive

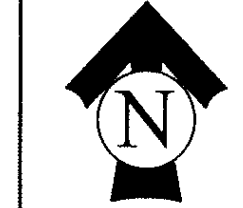
JOB NUMBER
CC
0239
SHEET
19 OF 22

M:\Land Projects\3\PROJECTS\CC0239\CC0239.dwg (CC0239) AS-BUILT.dwg, PAVING SUGAR CREEK DR. 3/16/2005 9:42:28 AM, cshansen, 150



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SCALE: 1"=50'

DATE: 7-22-2004
REVISIONS: 7-30-2004

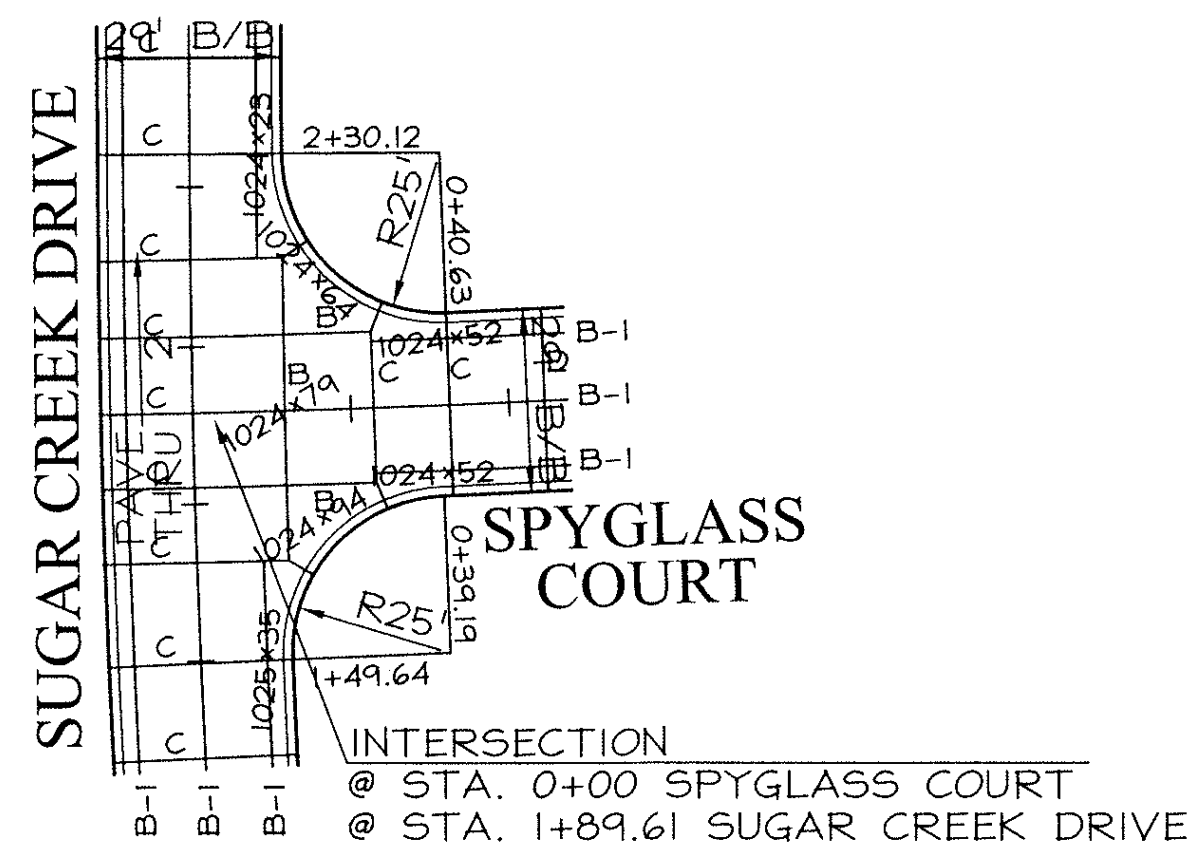
AS-BUILTS: 1-21-2005

PAVING
Spyglass Court

JOB NUMBER

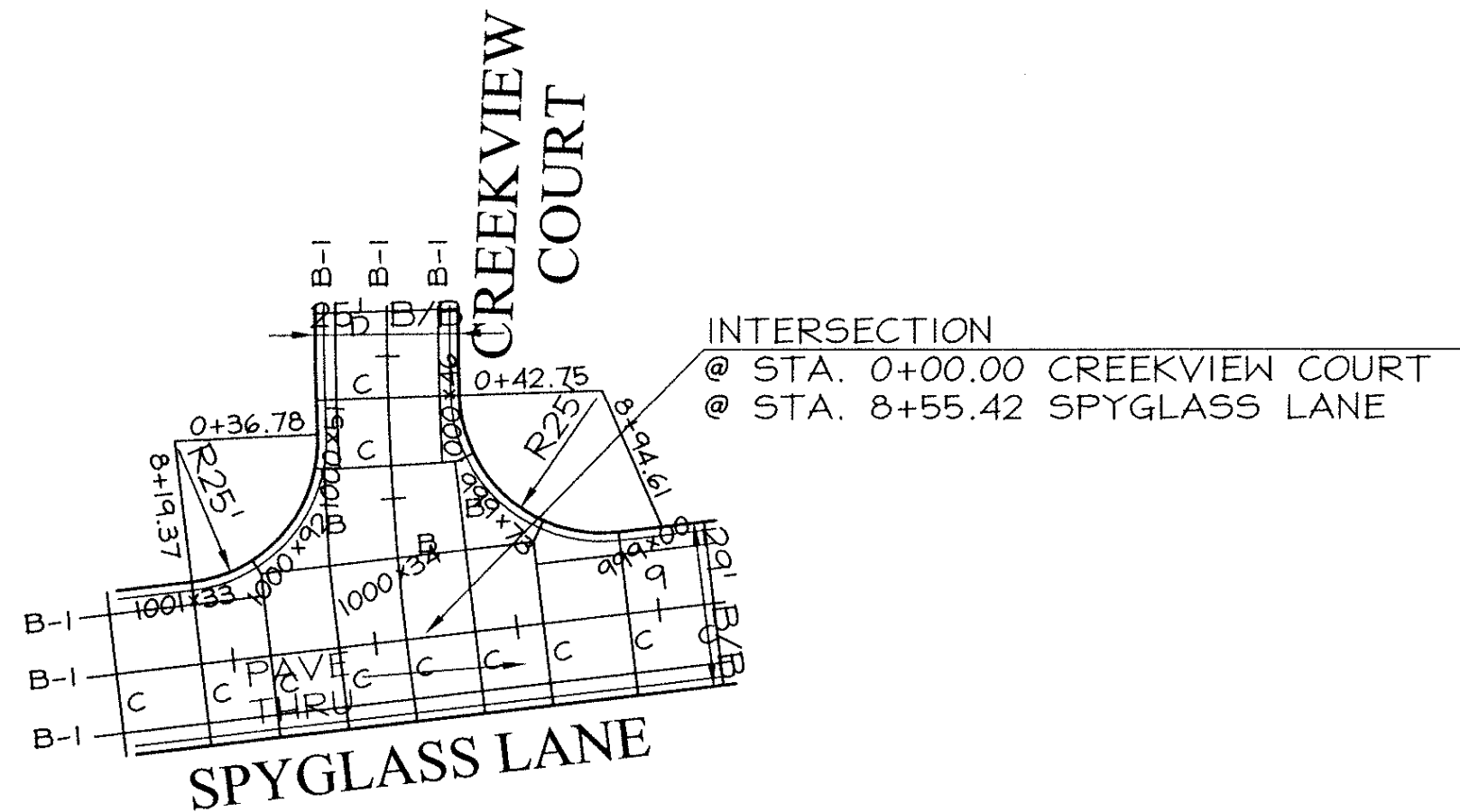
CC
0239

SHEET
20 OF 22



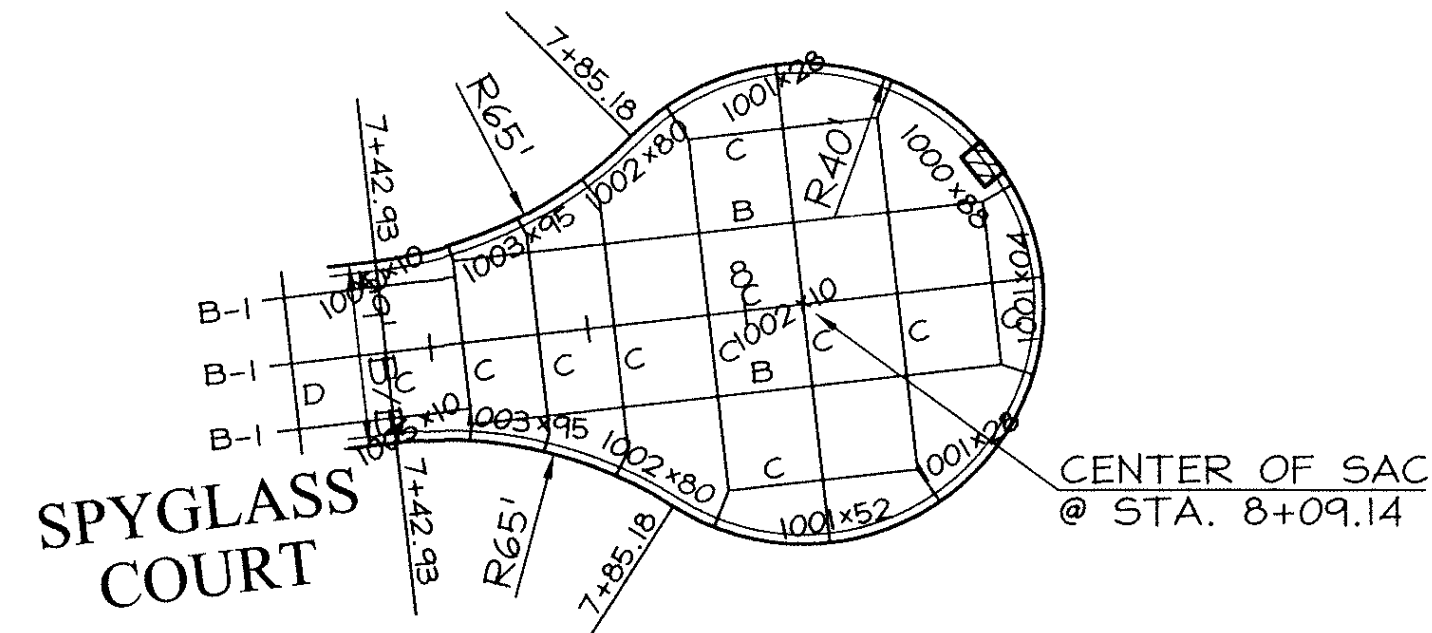
INTERSECTION DETAIL

SCALE: 1"=30' (SUGAR CREEK DRIVE & SPYGLASS COURT)



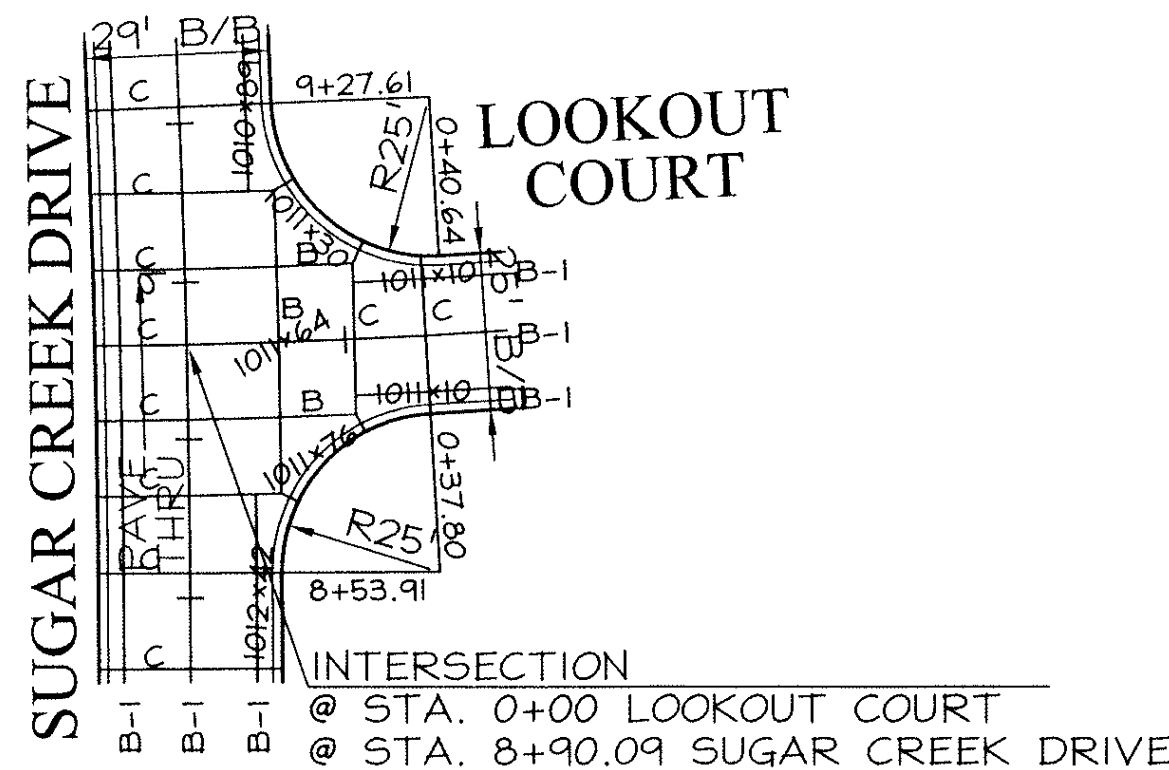
INTERSECTION DETAIL

SCALE: 1"=30' (CREEKVIEW COURT & SPYGLASS LANE)



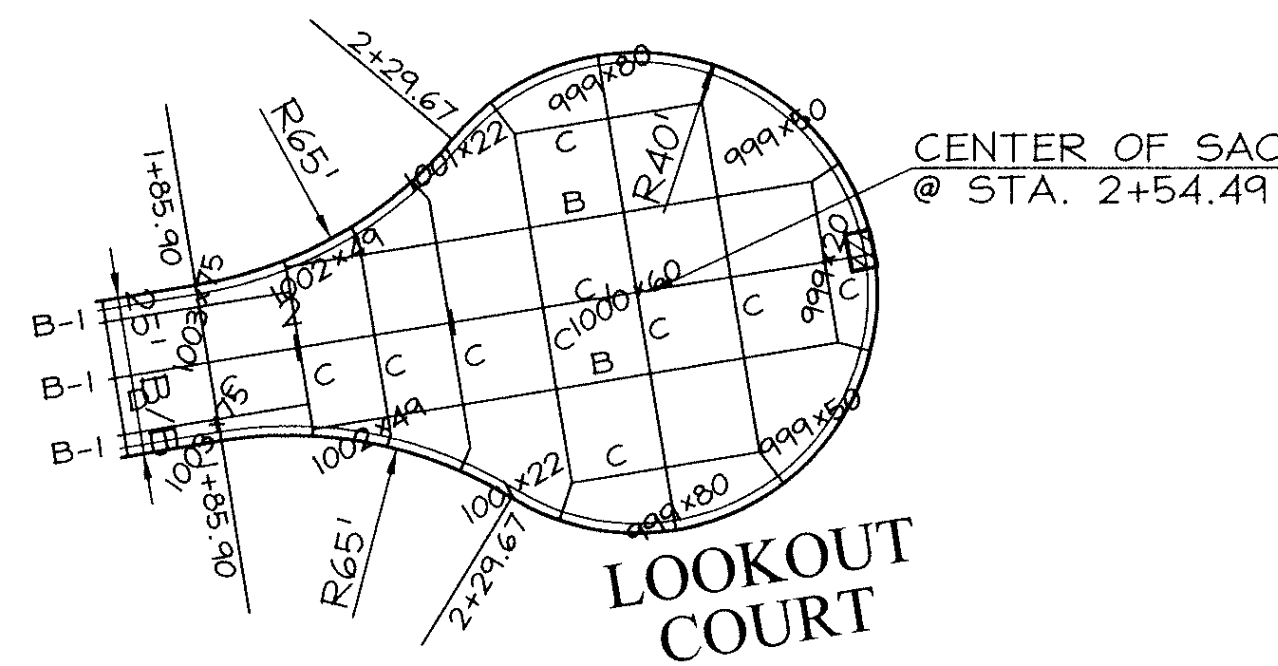
CUL-DE-SAC DETAIL

SCALE: 1"=30' (SPYGLASS COURT)



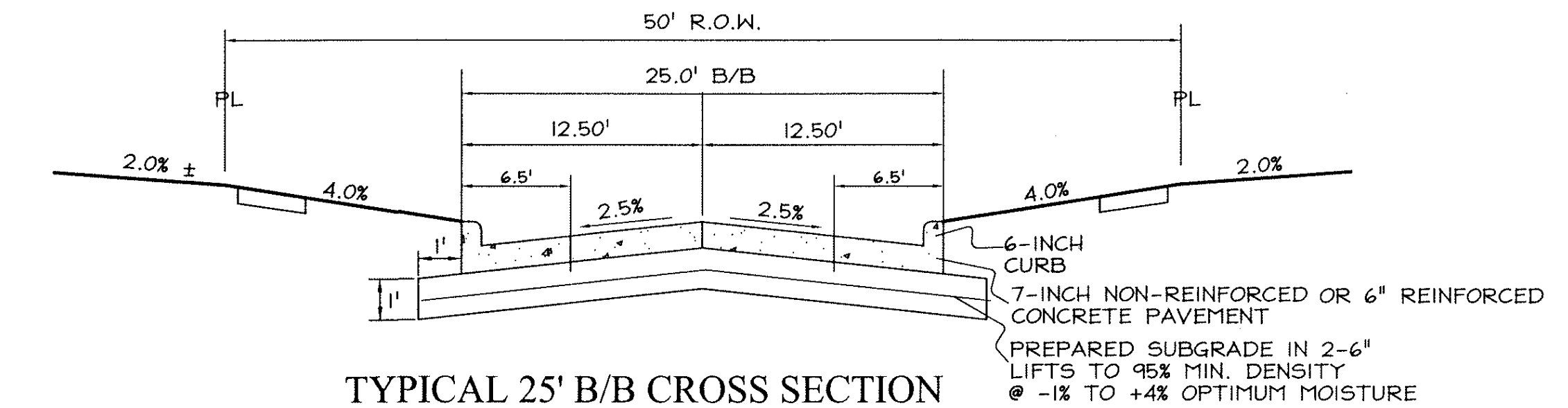
INTERSECTION DETAIL

SCALE: 1"=30' (SUGAR CREEK DRIVE & LOOKOUT COURT)



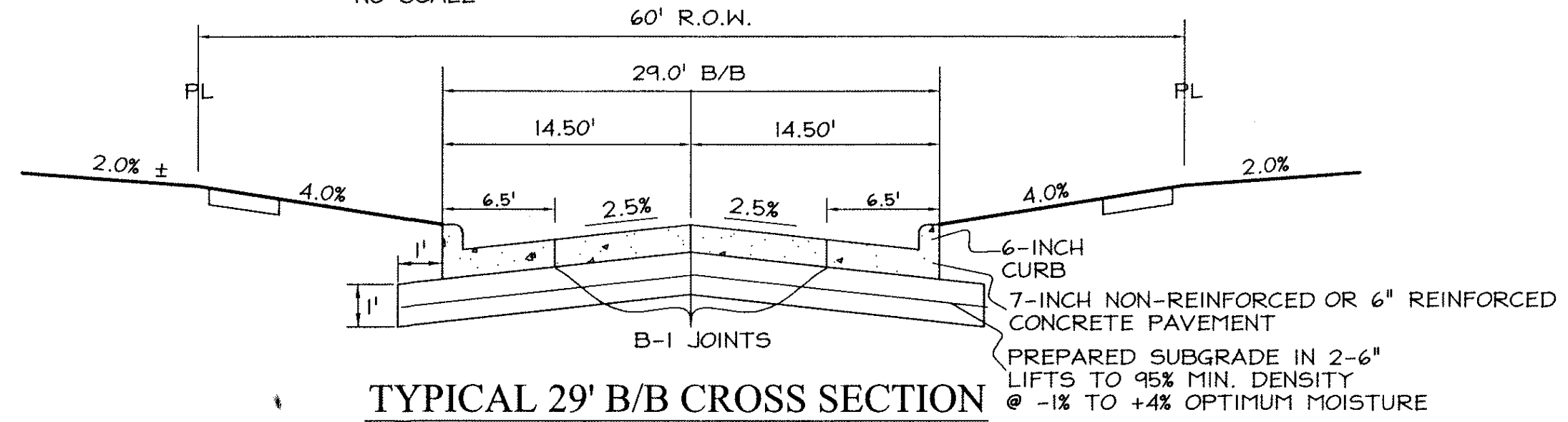
CUL-DE-SAC DETAIL

SCALE: 1"=30' (LOOKOUT COURT)



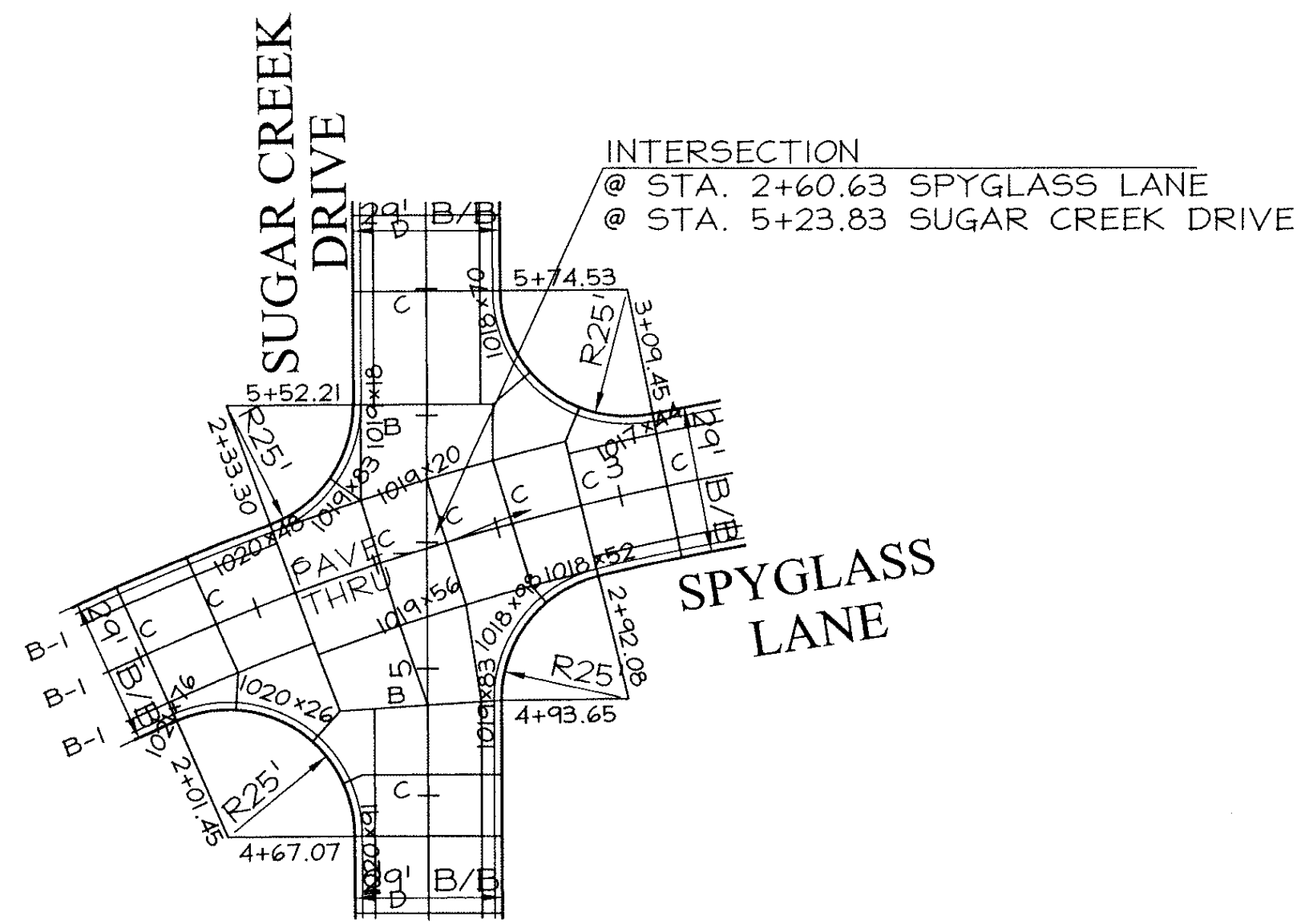
TYPICAL 25' B/B CROSS SECTION

NO SCALE



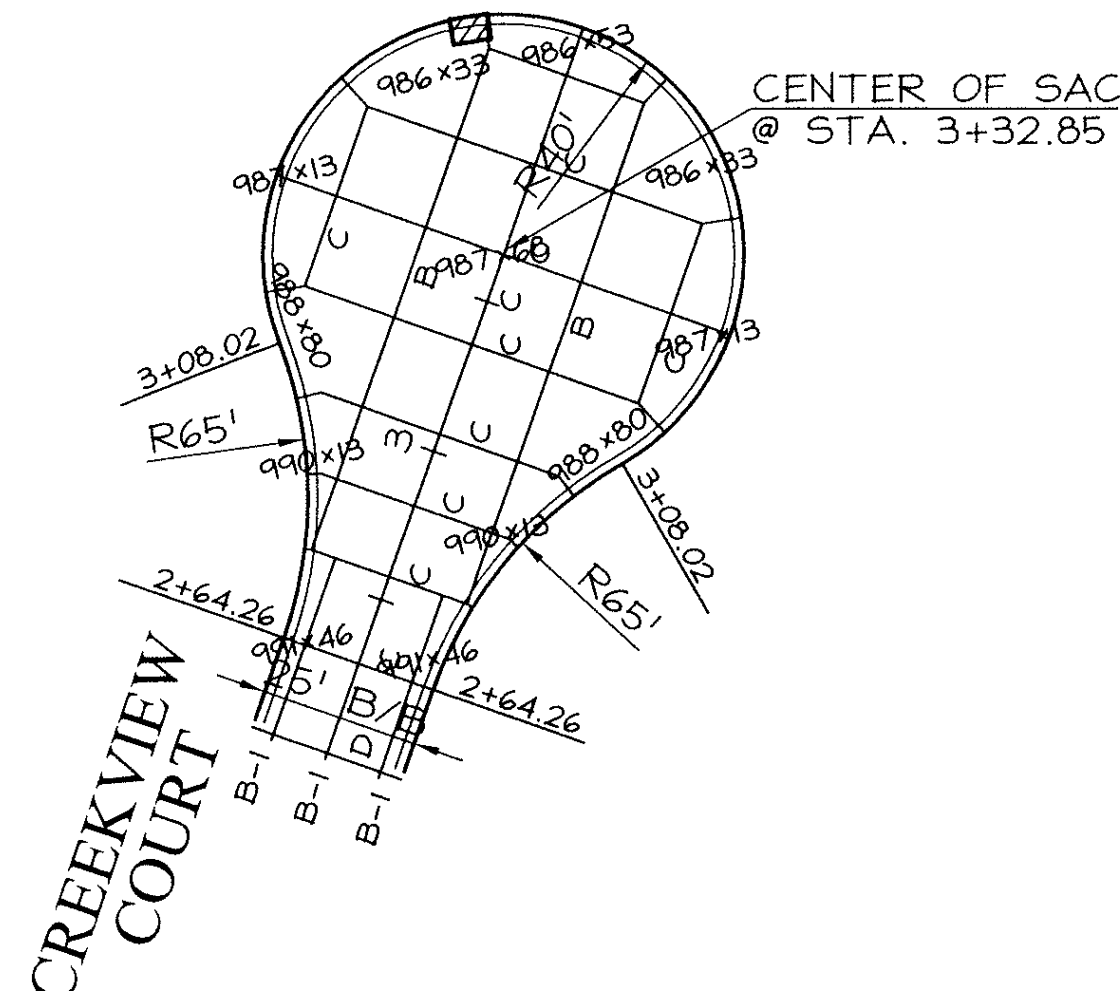
TYPICAL 29' B/B CROSS SECTION

NO SCALE



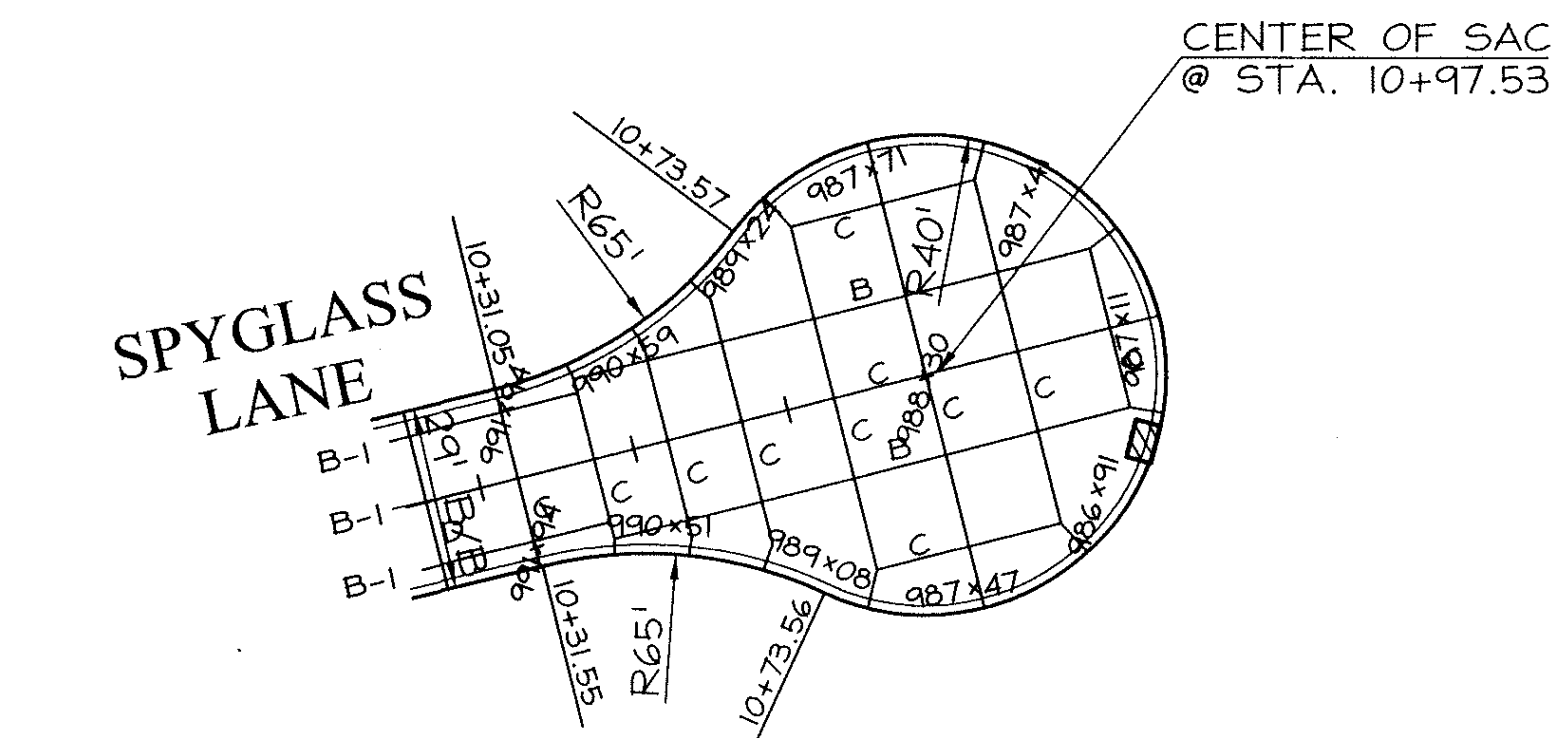
INTERSECTION DETAIL

SCALE: 1"=30' (SUGAR CREEK DRIVE & SPYGLASS LANE)



CUL-DE-SAC DETAIL

SCALE: 1"=30' (CREEKVIEW COURT)



CUL-DE-SAC DETAIL

SCALE: 1"=30' (SPYGLASS LANE)

NOTES

1. ALL SPOT SHOTS IN INTERSECTION/CUL-DE-SAC DETAILS ARE TOP OF SLAB.

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SCALE: NO SCALE

DETAIL SHEET
SPYGLASS

JOB NUMBER

CC
0239

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