Butterfield Country Club
Stream Restoration Project

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The Butterfield Country Club is –

- 36-hole Private Country Club
- Unincorporated DuPage County
- Surrounded by the Village of Oak Brook
- Northwest of the Midwest Road and 31st Street Intersection
- North of Ogden Avenue
- South of Butterfield Road
- West of Kingery Highway (Rte 83)
Ginger Creek and Midwest Club Tributary

- Ginger Creek flows through Ginger Lake
- Crosses under Baybrook Lane
- Enters the property from the north
- Tributary area of 2 mi²
- Combines with the Midwest Club Tributary
- Continues east to Midwest Road

- Midwest Club Tributary crosses 31st Street
- Enters the property from the south
- Tributary area of 0.9 mi²
- Combines with Ginger Creek in the northwest corner of the property
Site Issues

• **Stream bank Erosion**
  Eroding banks are undercutting bridge abutments and removing fairways

• **Overall Poor Course Drainage**
  Drainage system has had minimal up grading, thus resulting in difficult golf course maintenance
Areas which drain poorly or not at all
Project Responsibilities

• CBBEL
  Stream Restoration, Drainage Improvements, Engineering plans and Permitting

• Steve Smyers Golf Course Architects
  Master Plan for Golf Course Renovations
Fairway Erosion Within the course
Tree and Bush Undercut
The recommended Capital Improvement Plan included the following projects within Butterfield Country Club:

- Relocate and lower the Ginger Creek reach entering Butterfield Country Club

- Straighten Ginger Creek upstream of the replaced Midwest Road culvert crossing
The stream restoration consisted of –

- Relocation of the western and eastern portion of Ginger Creek
- Reinforcement of the stream meanders
- Creation of ponds/Littoral Shelves
- Decreasing the hydraulic grade line and associated velocity
- Increasing floodplain storage volumes
Ginger Creek East Relocation

RIPRAP SHALL MEET DOT STANDARD SPECIFICATIONS AND SHALL BE EARTH TO GRADE E IN SIZE STONE SHALL BE PLACED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

INSTALL NAS 60250 OR EQUIVALENT BLANKET, AS SPECIFIED ON THE PLAN.
Floc Log Application

![Floc Log Diagram]

![Floc Log Application Images]
Ponds and Wetlands
Littoral Shelf

Open Water
Midwest Tributary

Open Water

Inlet Channel

Western Relocated portion of Ginger Creek
Open Water

Inlet Channel

Western Relocated portion of Ginger Creek
Relocated West Portion of Ginger Creek
Midwest Club Tributary

*PLEASE NOTE THAT AT CERTAIN LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER, BOULDERS WILL BE STACKED TWO HIGH.

**BOULDER TOE VEGETATED BANK (TYP.)**

NOT TO SCALE
Midwest Club Tributary
Questions?