Brookfield Renewable Power

SAF Hydroelectric

SAF HYDROELECTRIC
INITIAL DEVELOPMENT CONCEPT
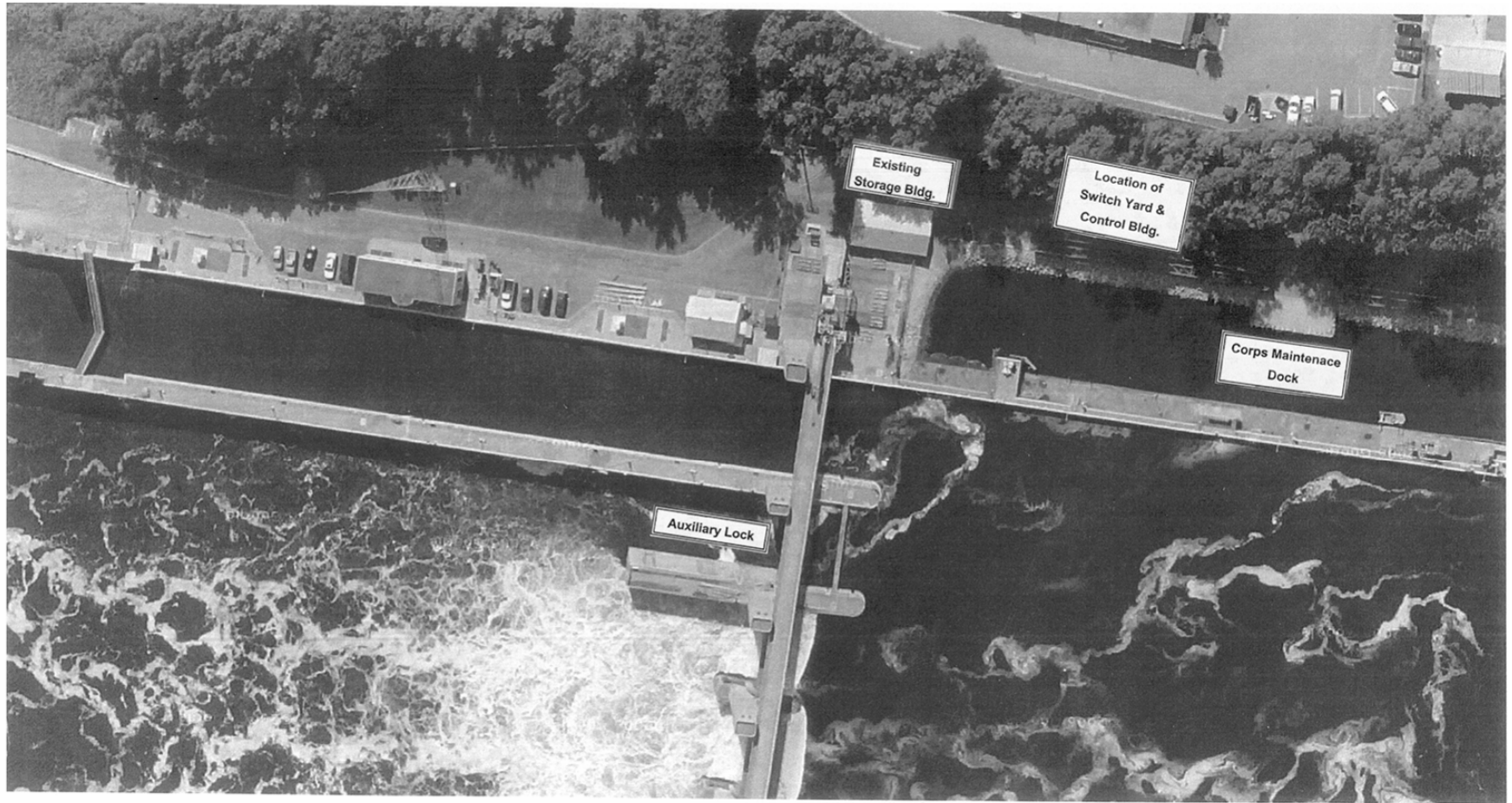

Project Location

St Anthony Falls Hydroelectric

History

➢ November 1987- Powerhouse failed due to seepage undermining of sandstone.

➢ 1998- lower Site removed from license for project No.2056

➢ 2001-SAF Hydroelectric Filed Preliminary FERC Permit Application

➢ FERC License Submitted January 2004

➢ FERC License Approved February 2006

➢ BRP Involvement Early 2007 W/ SAF LLC
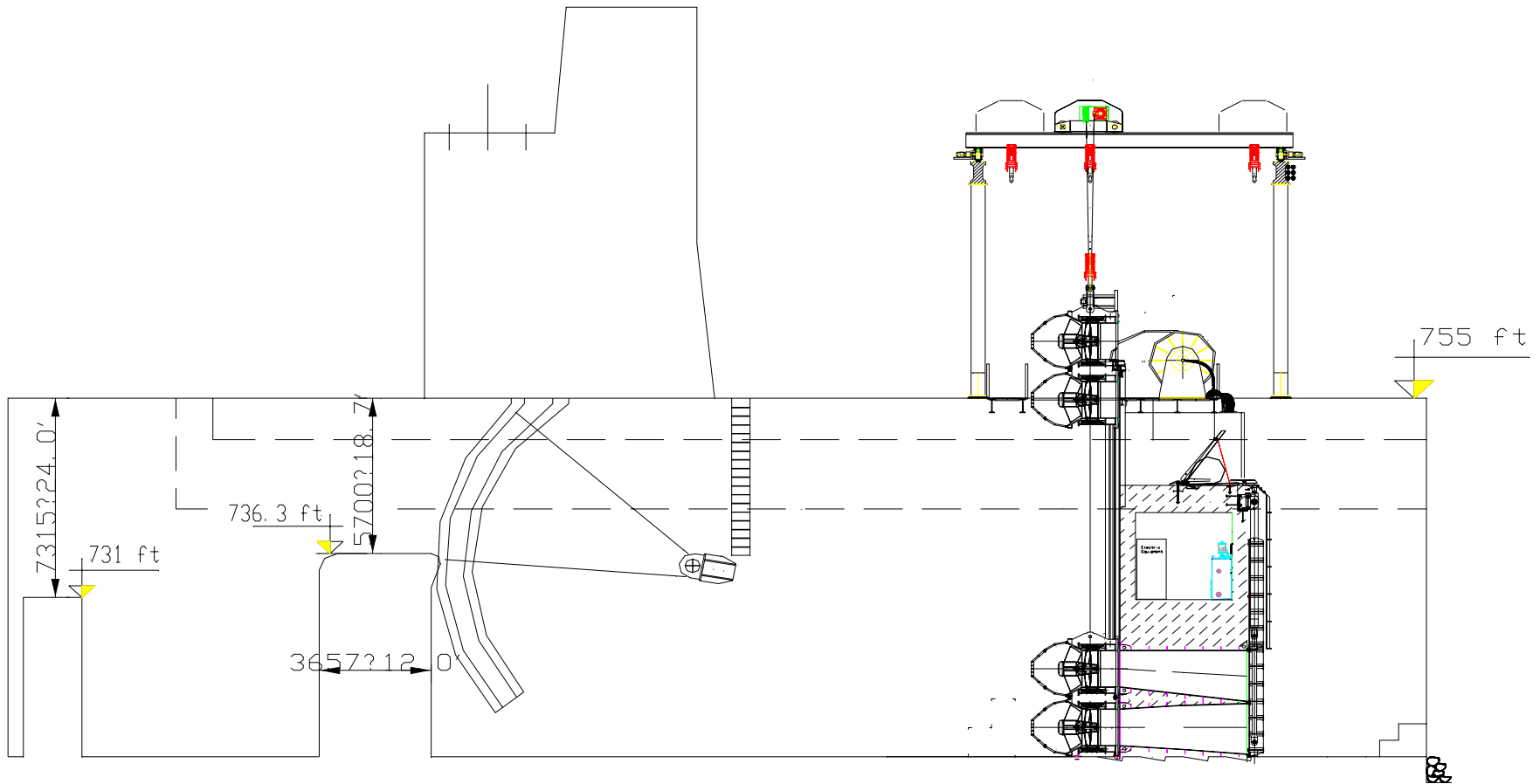
➢ I-35W Bridge Collapse

Existing Storage Bldg.

Location of Switch Yard & Control Bldg.

Corps Maintenace Dock

Auxiliary Lock

Photograph No.1
Arial View of Site

SAF Challenges

- ➢ **FERC License on a USACE site**
  - – At the time no clear guidance/procedures for "outside" construction process on USACE site
  - – Site Operations "Nervous" of New Powerhouse
- ➢ **US Army Corps of Engineers Operation**
  - – Design approval – Time & Detail
  - – Site Security/Access
    - ▪ OPM Process
  - – Use of site equipment
  - – Navigational concerns
    - ▪ Flow changes / Boat Traffic
- ➢ **US Army Corps of Engineers Safety Program**
  - – Accident Prevention Plan (APP) Approval
    - ▪ Incremental Approvals Not Acceptable
- ➢ **I-35W Bridge Collapse**
  - – Corps Involvement with Incident
  - – Site Access

SAF Successes

- **Received USACE Approval in March 2009**
  - MOA Approved
  - APP's Approved
- **FERC Construction Approval April 2009**
- **MTSA TWIC Program – Easier Security Process**
- **Began Construction Activities Late April 2009**
- **Improved Relationship with USACE**
  - Do What's Asked/Follow Up/Debate Appropriately
  - SAF Commitment To Safe Construction & Operation
  - "Communicate / Coordinate / Communicate"

"We Have Learned"

- **Clear Understanding of USACE Requirements Takes Time**
  - **Safety**
  - **Design**
  - **Operations**
  - **Security**
  - **Time Required For Approvals**
- **Staff Appropriately For Project Development**
- **Staff Appropriately For Construction & Operational Development**
- **Owner Has FERC License But To Be Successful Involves Understanding The Federal Entity is the "Landlord".**

Brookfield Renewable Power

"Thank You!"