

2001 FEBRUARY 08

**TO:** CITY MANAGER

**FROM:** DIRECTOR PARKS, RECREATION AND CULTURAL SERVICES

**SUBJECT: CONCEPTUAL PLAN FOR BURNABY LAKE SPORTS COMPLEX - EAST**

**PURPOSE:** To request Council to bring down a Capital Reserves Bylaw in the amount of \$50,000 for additional environmental assessments prior to completion of the detailed design for Burnaby Lake Sports Complex - East.

---

**RECOMMENDATION:**

1. THAT Council be requested to bring down a Capital Reserves Expenditure Bylaw in the amount of \$50,000 (inclusive of 7% GST) for additional environmental assessments prior to completion of the detailed design for Burnaby Lake Sports Complex - East.

**REPORT**

At its meeting of 2000 February 07, the Parks, Recreation and Culture Commission received the above noted report and adopted the three recommendations contained therein.



Kate Friars  
DIRECTOR PARKS, RECREATION  
AND CULTURAL SERVICES

tc

**Attachment**

c:\data\council\PK-CONCEPTUAL PLAN FOR BURNABY LAKE SPORTS COMPLEX - EAST

cc: Director Finance  
Director Planning  
Director Engineering

**SUBJECT: CONCEPTUAL PLAN FOR BURNABY LAKE SPORTS COMPLEX - EAST**

**RECOMMENDATIONS:**

1. THAT the concept plan for the Burnaby Lake Sports Complex - East be approved in principle, subject to review following further detailed site analysis.
2. THAT Commission approve the expenditure of \$48,000 (including net GST rebate) from the 2001 Capital Budget for additional environmental assessments prior to completion of the detailed design for Burnaby Lake Sports Complex - East.
3. THAT Council be requested to bring down a Capital Reserves Expenditure Bylaw in the amount of \$50,000 (inclusive of 7% GST) for additional environmental assessments prior to completion of the detailed design for Burnaby Lake Sports Complex - East.

**REPORT**

**1.0 SUMMARY**

The completion of Burnaby Lake Sports Complex - West in 1998 accommodated a significant increase in soccer, field hockey and football activity on three artificial turf fields. The provision of the artificial fields allowed sport activity to be transferred away from seven of the ten grass fields at Burnaby Lake Sports Complex - East, and enabled the planning process to begin for its conversion to include a baseball facility. Currently, the community is deficient in baseball facilities, and the East Complex was identified as the only site in the parks system that could accommodate full-sized diamonds.

In 1999, the Commission authorized work to begin on a feasibility study and conceptual design for the redevelopment of the East Complex site (**Attachment #1**). The study led to a conceptual design that recognizes the demand for baseball as well as significant environmental measures on this sensitive lakeside site (**Attachment #2**). The concept plan was presented for preliminary review and input by user groups and environmental organizations at two separate workshops. The project was then presented to the Environmental Review Committee for preliminary comments. Based on the feasibility study recommendations and the input of the above groups, areas for further research and monitoring were identified that are important prior to the initiation of full detailed design work.

At this juncture, approval of the East Complex conceptual plan and financing of the next phase of site assessment is sought in order to allow further research and refinement of the concept and enable detailed construction drawings to be prepared at a later date.

## 2.0 CONCEPT PLAN

The Parks, Recreation and Culture Services Department Master Plan calls for the development of an additional civic baseball facility, but until now adequate land has not been available. Individual baseball facilities are available in Central Park and Robert Burnaby Park, respectively, but offer limited opportunity for tournaments. The objectives of this project are to accommodate additional capacity for baseball, to diversify and enrich the recreational experience with additional park components for passive recreation and appreciation of nature, and address the significant challenges presented by the site, specifically to restore the riparian edge of Burnaby Lake. Based upon the results of the feasibility study and user, environmental stakeholder and Environment Review Committee review, the concept plan devotes approximately 1.66 hectares (4.1 acres), or 18 percent of the total area to habitat and passive park land.

The East Complex is expected to serve most of the local leagues and a diverse sports group age range. The sports component includes two illuminated baseball diamonds with backstop structures, spectator seating, and an announcer's tower. Associated amenities will include a pedestrian gathering area, an open and flexible multi-activity space, drinking fountains, park benches and pedestrian paths. In addition, a third sports field is proposed to be overlain with the north diamond outfield that could accommodate rugby and soccer in the off-baseball season. It is planned to locate a cricket pitch on Fields 4 and 5 at the West Complex, pending a final decision on the type of field surfacing. The existing rugby fields (Fields 1 and 2) and the illuminated all weather field (Field 10) are unaffected by the project.

The planning approach undertaken on this site was to adopt a conservative development program in order to meet the challenge of rebuilding the sports complex next to an environmentally sensitive site, and to restore the natural lake edge conditions. In addition, the program addressed the enhancement of recreational opportunities within the riparian zone of the lake. In that light, the proposed passive park land areas will be adjunct to both the sports fields and wetlands, and consist partially of open lawn programmed to accommodate team warm up areas, batting cages, a playground structure, picnic tables and trails that connect to Burnaby Lake Regional Park. It is envisaged that recreational diversity will increase significantly with the proposed park land component in conjunction with the sports field renovations. The park land areas will be partially forested and act as a transitional element and buffer the more sensitive areas from sport activity. It is through the park land component that vital trail connections to Burnaby Lake Regional Park will be enhanced.

The construction of site sensitive elements for circulation, such as boardwalks and viewing platforms in conjunction with interpretive and educational features, are anticipated to be a net benefit to users of the East Complex. Such structures may help protect the more sensitive areas by avoiding the construction of paths with compacted fill materials, by controlling pedestrian routing and traffic, and by limiting indiscriminate access to the lake shore.

The use of the above elements recognizes that a proportion of East Complex patrons are comprised of users who would undoubtedly find such structures attractive and assist in the appreciation of the Burnaby Lake landscape.

The incorporation of wetlands and native planting in the project will greatly enhance the area's wildlife diversity, richness of landscape, and the ability to mitigate the impact of the proposed redevelopment with improvements to treatment of the drainage and the addition of riparian and upland forest planting. All runoff from the sports fields, open areas and parking lot will be directed into, and treated by biofiltration ponds before entering Burnaby Lake. The ponds will comprise complete aquatic and bog plant communities and will attract a greater diversity of wildlife to the site. As directed by Council, further research is planned to explore the issue of directing storm water flows from Still Creek into the ponds to help mitigate sedimentation.

Generally, the surface of the site rests over soft, saturated soils approximately 9 metres in depth by Sperling Avenue to approximately 20 metres deep by Burnaby Lake. The upper layers of the soil profile consist of the sports field turf and field drainage aggregates over a continuous mat of hogfuel. The lower layers of soil consist of native peat, organic silts and clay and rest on dense sand and glacial till below 9.9 metres.

Issues associated with the proposed improvements that require further work or mitigation prior to construction include: undertake additional surveys and characterization of wildlife and vegetation; determine the impacts on water quality from the existing layer of hogfuel and proposed sports field runoff; provide options for the disposal of exposed hogfuel; monitor and assess the hydrology of the site and, with water quality data, establish the size and plant composition of the ponds; provide sediment and erosion control during construction; determine potential encroachment into the riparian area of Still Creek; assess the existing trees to determine their health; determine the effects of sports field lighting on wildlife and establish an appropriate buffer tree planting program; determine the appropriate design of ponds including capacity, configuration and type of liner; provide additional geotechnical testing where appropriate to aid with pond design; and monitor and remediate post-development impacts.

It is noted that the presence of deep, soft soils increases the risk of settlement for elements constructed at the surface and necessitates the use of specialized design and construction techniques to minimize this risk. This factor and the site's sensitivity presents challenging conditions which will extend the time frame and costs of implementing the plan. Construction will be carried out in a carefully controlled sequence to limit the exposure of subgrade materials such as hogfuel and soft soils, and will be limited to dry summer months.

The consultant team projected a preliminary construction cost in the range of of \$4.0 million for this project, including project fees, contingency and GST. The above cost includes rebuilding Field 1 (rugby). The program has since been reduced and further revisions are planned with the intent of decreasing costs further. An updated cost estimate will be produced as part of the detailed design work.

### **3.0 WORKSHOPS & STAKEHOLDER REVIEW**

The conceptual plan was presented at a sports user group workshop on 2000 June 28. The attendees included representative from the Burnaby Archers, Burnaby Lougheed Minor Baseball, East Burnaby Minor Baseball, Lower Mainland Baseball, Burnaby District Youth Soccer, Fraser Minor Baseball and Metro Woman's Soccer. The consensus was that the conceptual plan as indicated was acceptable to all workshop participants with a few revisions of a minor nature. The Burnaby Rugby Association, Burnaby Field Hockey, and Burnaby Cricket Association were briefed on the conceptual plan and workshop comments.

The conceptual plan was also presented in a separate environmental workshop held on 2000 November 07. The attendees included representatives from the Burnaby Lake Park Association, GVRD Parks, BCIT Environmental Studies, and the Department of Fisheries and Oceans. The workshop participants complimented the plan for its environmental component, and provided recommendations that will be explored in the detailed design phase.

Staff also met separately with the Burnaby Lake Flyers, a model airplane group that is currently allocated the former East Complex field hockey fields. It was determined that this group will have to find an alternate location as their spatial needs will exceed that which will be available upon completion of the project. Staff will work with the group to determine if there is a potentially acceptable site in the Parks system for their sport. Alternatively, the group said that they would look for a location in the Fraser Valley, a less than ideal situation as most of their members are from urban communities.

The concept plan was presented to the Environmental Review Committee on 2001 January 17. Members of the Department of Fisheries and Oceans, the Ministry of the Environment, Lands and Parks, and City staff were present. The reception of the plan was very supportive as it provides a net gain in habitat. Direction was provided and issues for further research were identified which will be addressed during the detailed design phase.

### **4.0 NEXT STEPS & TIMELINE**

Upon approval of the expenditures outlined in this report, the services of environmental consultants will be obtained to conduct more detailed hydrological, wildlife, and vegetation studies.

These studies will provide essential detailed data suitable for the preparation of construction drawings, and will enable the project to proceed through the subsequent environmental agency review process. Field allocation planning for sports groups for the East Complex, West Complex fields 4 and 5, and the Robert Burnaby Park baseball diamond are linked to the completion of the East Complex.

Once the studies have been completed this summer, a final report will be forwarded to Commission and Council requesting authority to retain the services of engineering consultants to complete the detailed construction drawings. A public open house is proposed in the fall to introduce the concept plan to the general public. It is anticipated that construction will be phased and begin in the spring/summer of 2002 with completion in 2005. A longer term construction phasing program is necessitated by the soft soils and hydrological conditions intrinsic to this site. A detailed construction phasing program and schedule will be developed during the detailed design phase.

## 5.0 FINANCING

The costs of this phase of the work as described herein is \$48,000 (including net GST). Sufficient Capital Reserves are available and the Commission has included \$100,000 under the 2001 Major Parks component of the 2001-2005 Provisional Capital Program for this work. Upon Commission approval, it is requested that Council be requested to bring down a Capital Expenditure Bylaw in the amount of \$50,000 (inclusive of 7% GST) to finance the environmental studies.

## 6.0 CONCLUSION

The proposed East Complex concept plan possesses many benefits in excess of what currently exists on the site, including the creation of a baseball complex with an additional rugby/soccer field, more diverse recreational and support amenities, and an environmental enhancement component that comprises almost one fifth of the site. The plan was reviewed with favour by all users, environmental stakeholders, regulatory agencies and staff.

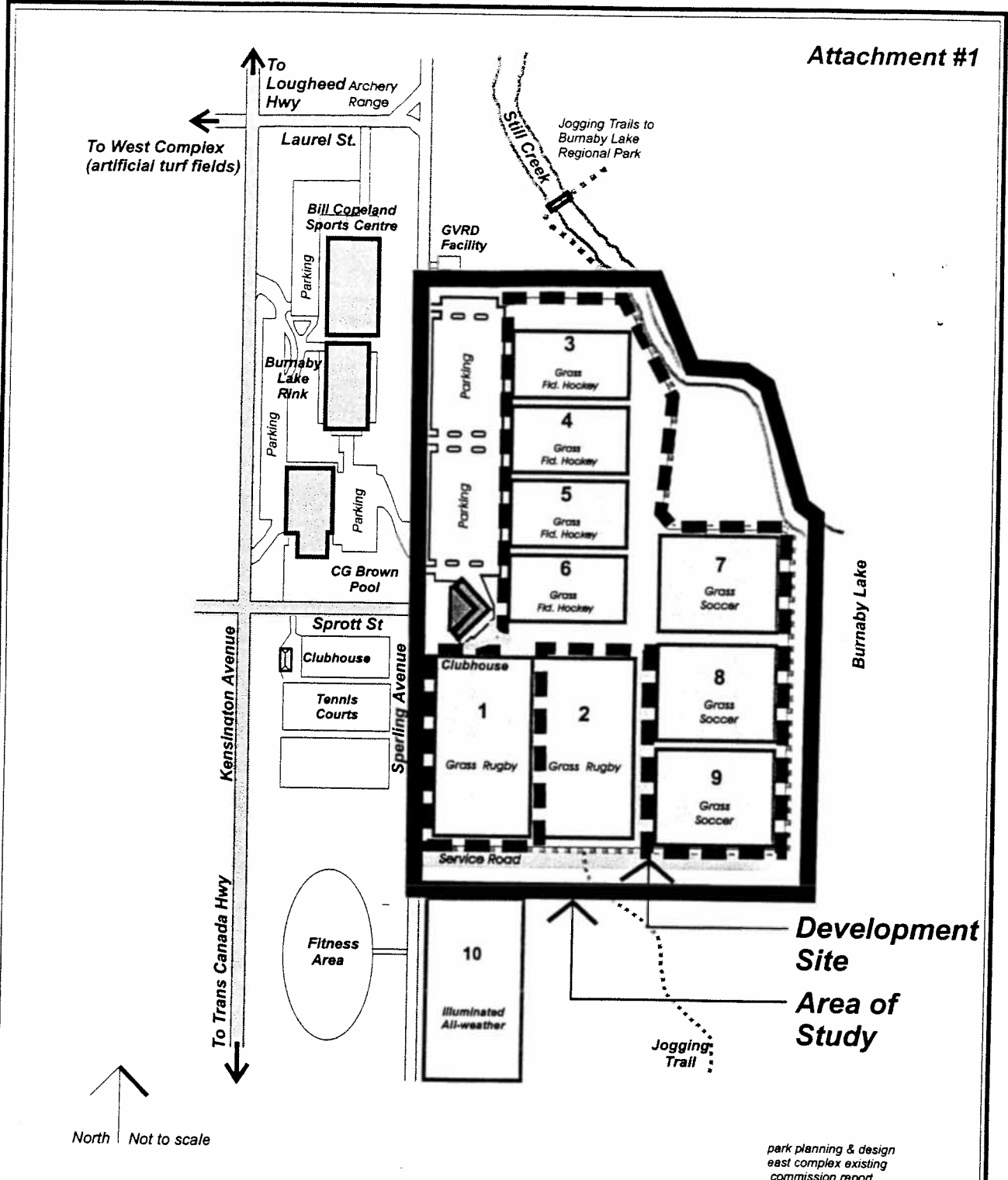
The approval of the concept plan, in many ways unique in comparison to other sports complexes, and the financing of the final stage of environmental studies at this juncture will enable the project to proceed with few delays and its completion to be maintained as scheduled.

MB/JK/RS:mb:dl

Attachments (2)

d:\meredith\Bbylake sports complex E rep

cc: Director Finance  
Director Planning  
Director Engineering









park planning & design  
east complex existing  
commission report

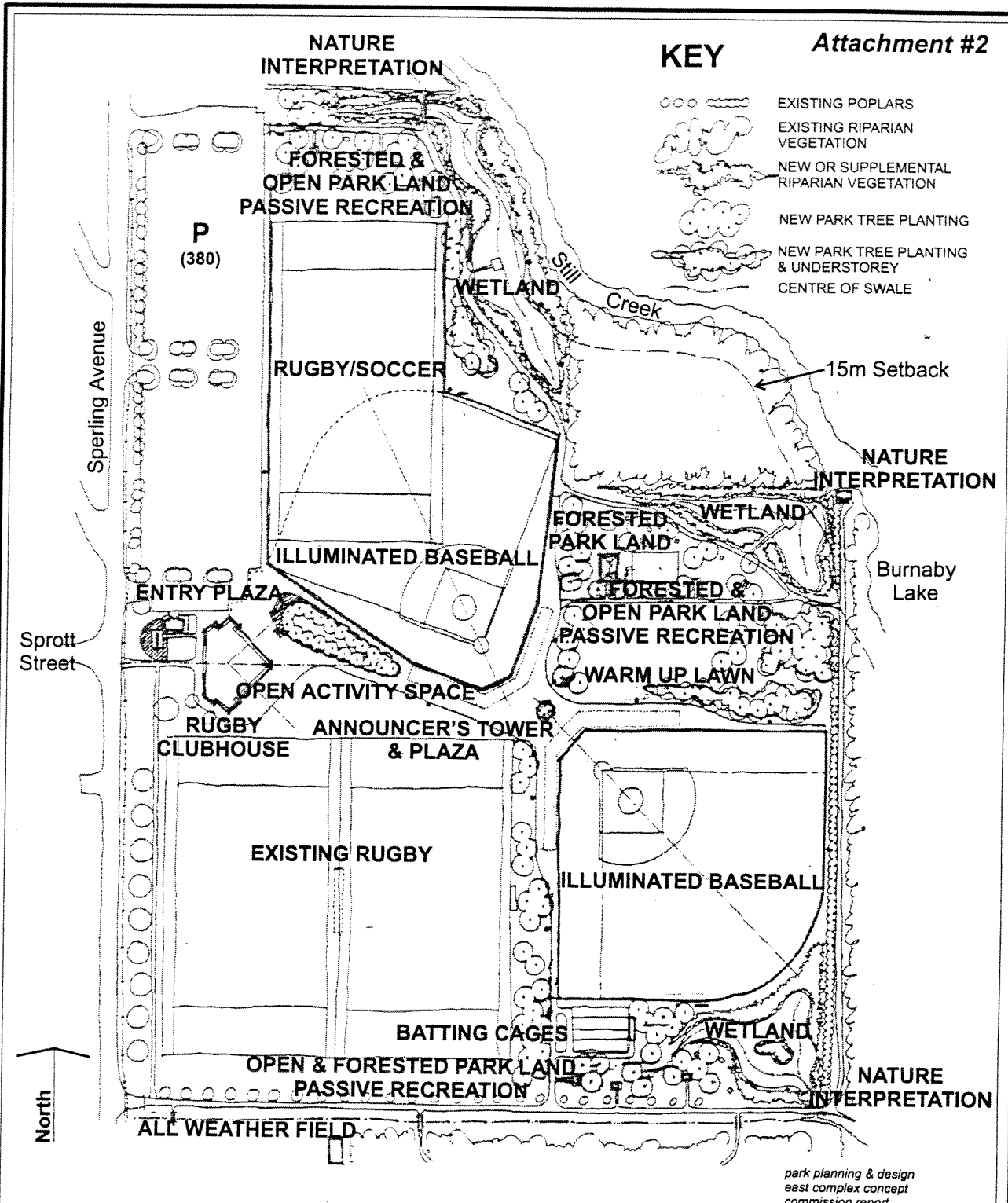


Burnaby Lake Sports Complex  
**East Complex**  
**Existing Conditions**

Drawing: OP 9-1-149s  
Date: 01/01/30  
Scale: NTS  
Drawn: MB

KEY

-  EXISTING POPLARS
-  EXISTING RIPARIAN VEGETATION
-  NEW OR SUPPLEMENTAL RIPARIAN VEGETATION
-  NEW PARK TREE PLANTING
-  NEW PARK TREE PLANTING & UNDERSTOREY
-  CENTRE OF SWALE



park planning & design  
east complex concept  
commission report



Burnaby Lake Sports Complex  
**East Complex**  
**Proposed Concept Plan**

Drawing: OP 9-1-150s  
Date: 01/01/30  
Scale: NTS  
Drawn: MB