

# Sun-N-Sand Model Railroad Club

Proposition:

“C”

Arizona

# Our Long-term Goals

- Provide a model railroad exhibit that interests the public with running trains and detailed scenes.
- Provide a membership environment that incorporates multiple member interests.
- To bring the club together around an operating environment all can enjoy.

# Park Viewpoint

- Model railroad exhibit with moving trains
- Arizona scenery
- Models that interest the public
- Close up views of details and trains

# Club Viewpoint

- Model railroad environment that allows
  - Long train runs
  - Running long trains
  - Multiple trains per line operation
  - Members can learn in all phases of model railroading
  - Participation by all members

# Why

- We developed this proposal to bring the members together in a enjoyable for all environment.
- It is designed to alleviate controversy within the club over:
  - 2.5 percent grades
  - Perception the “E” is un-doable in the time allotted
  - Assignment of 75 percent of track to one mode of operation
  - Lack of detail visible to the public

# Our Proposal

- Two Layouts
  - One permanent and close up to the public.
  - An inner NTrak layout
- DC and DCC co-existing on *all* lines
- No damage to current NTrak inventory
- The club will become an NTrak club with a permanent layout
- Grades limited to 1 percent

# The Budget

- Cost to implement \$9,000
- Reserves after implementation \$9,000
- Cost Summary
  - Framework \$96.25
  - Track Support \$0.00
  - Track work \$1,559.11
  - Electrical \$4,255.88
  - Scenery \$1,279.79
  - Module Refurbishment \$1,012.91
  - Shipping and Sales Tax Estimate \$656.32
  - \$8,860.26

# Our Schedule

Task	Weeks	Start	End	Comments
Acceptance	2	08/26/2009	09/09/2009	
Frame work	12	09/13/2009	12/06/2009	
Track Plan	9	09/09/2009	11/11/2009	
Track Base	8	11/11/2009	01/06/2010	Holidays
Cork and Track	16	01/06/2010	04/28/2010	
Electrical preparation	10	10/25/2009	01/03/2010	Holidays
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Testing	6	03/31/2010	05/12/2010	
Scenery Shell	10	04/28/2010	07/07/2010	
Re-testing	3	06/02/2010	06/23/2010	
Scenery Scenes	21	05/05/2010	09/29/2010	Until done
Module Refurbishment	24	04/14/2010	09/29/2010	

# The “C” Layout - Basics

- Double track dog bone track plan
- One track dedicated to automation
- One track for member operation

# The “C” Layout – Framework

- Light weight construction similar to that developed by module committee
- Framing similar to “L” girder
- Track base supported on risers

# The “C” Layout – Trackwork

- Supported on cork on foam base
- Peco code 55 track
- Peco code 55 switches
- Un-ballasted

# The “C” Layout - Scenery

- Arizona theme from Mountains to desert
- All “five C's” used plus some other C's
- C's spread out over layout
- 1 major town with train station
- 2 or more minor towns with stations
- Rural scenery

# The “C” Layout - Electrical

- DC to DCC switchable
- Multiple DCC power districts
- Multiple DC electrical districts
- Three DC control districts per line

# The NTrak Layout

- Un-modified NTrak modules
- Three DCC power districts per line
- Two DC control districts per line
- Lindsay throttles used
- DC to DCC switchable

# General Electrical Notes

- All lines are switchable from DC to DCC. The whole line will switch all at once.
- DC control blocks are limited in number to control cash outlay. They will be expanded in the future to allow more trains per line.
- RF remote electrical shut off each line will be provided.
- A “master” throttle for each line is probable.
- Each DCC booster will power 2 PSX-2 circuit protection modules.

# Strengths and Advantages

- This proposal can accommodate all the members
- Two Layouts up and running at Park opening
- Provides Arizona scenes and trains close to the public
- Five lines to run on with multiple train operation on each line
- Maintains the original commitment to DC and DCC operation on all lines

# Future Alternatives

- Flyover bridge from “C” to NTrak layout
- Computer control
- Incorporate the desert ends
- Add small automated scene loops
- Add RF master throttles to allow closer public contact
- Replace original “C” layout track with hand laid track

# The Dedicated Crew

Steve Gendler

Jim Johnson

Maryanna Morris

Tony Pietsch

Bob Hoddy

George Morris

Bob Nuss

Skip Spittle

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Your name here

# For questions ask:

- Framework (bench work): Tony Pietsch
- Track base: Skip Spittle  
Tony Pietsch
- Track work: Skip Spittle
- Electrical: George Morris  
Skip Spittle
- Scenery: Bob Nuss

# Member Opportunities

- Learning in model railroading by helping in any phase of the construction
- Contribute to the automation by donating cars from your collection
- Satisfaction in modeling efforts added to the layouts that will be on public display.

# What is not Included

- Disfiguration of NTrak modules.
- Dis-enfranchisement of members and their ability to run the train they want on the line they want.

# What is next

- All members are encouraged to critique, comment, and participate in the final design
- Approval by membership
- Meet with park
- Develop final track plan with 5 C's chairs
- Start building



I am speaking for a dedicated group of members who wish to create a layout environment all members can enjoy.

Please hold your questions until the end of this presentation. We will gladly entertain them at that time.

A much more detailed description of this proposal will be handed out at the end.



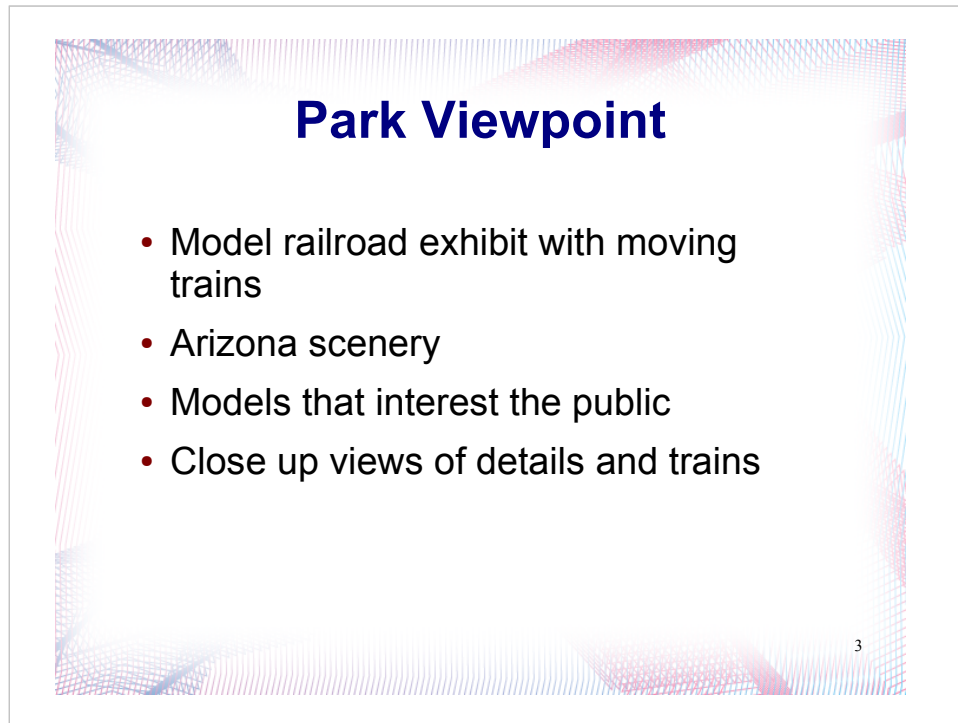
## Our Long-term Goals

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2

The exhibit will include multiple train running, train stops, the five C's and other C's

The membership interests will be met by the ability to run long trains, run multiple trains, run in an all DC or DCC mode or in a mixed mode, and run realistic train operations.

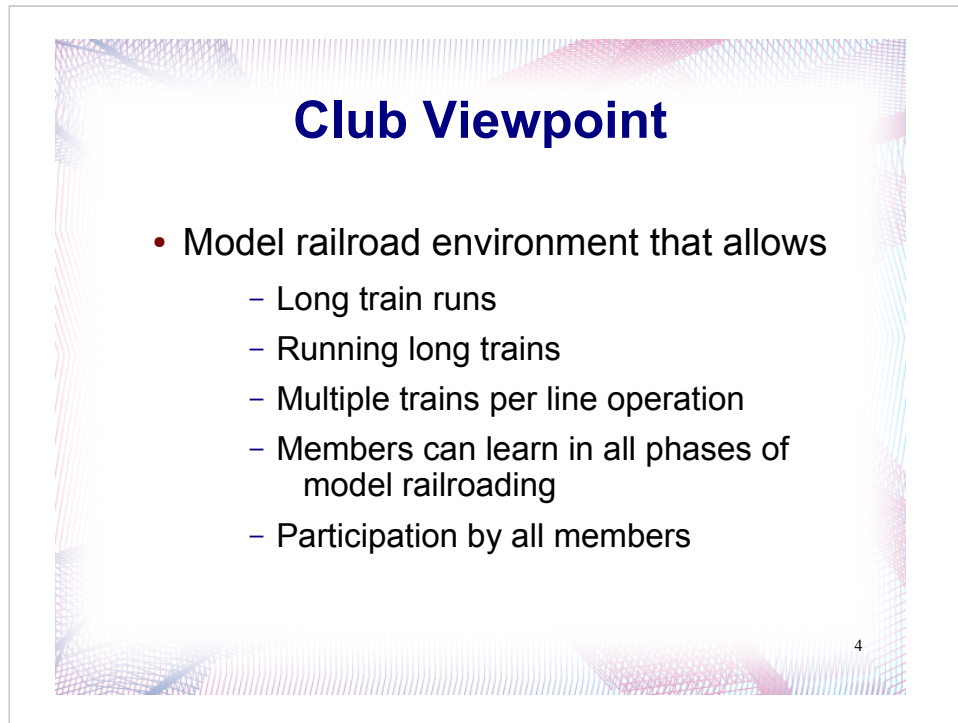


## Park Viewpoint

- Model railroad exhibit with moving trains
- Arizona scenery
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- Close up views of details and trains

3

From the park's perspective we should have automated running of trains, multiple train operation, Arizona recognizable scenes, and educational scenes on railroads in Arizona

A presentation slide titled "Club Viewpoint" with a decorative border of blue and red wavy lines. The slide contains a bulleted list of features for a model railroad environment.

**Club Viewpoint**

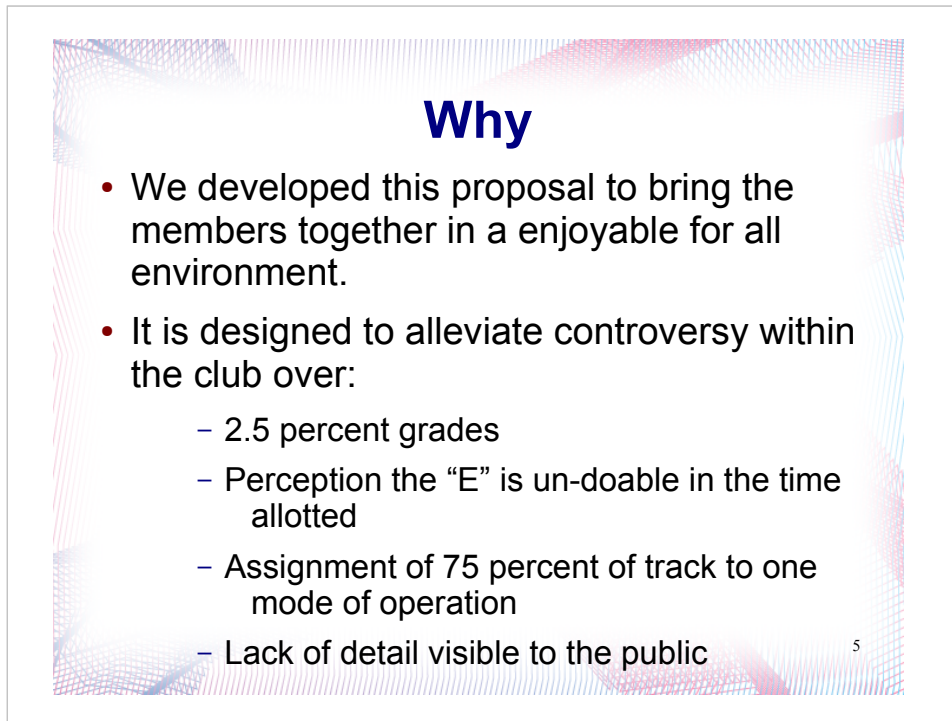
- Model railroad environment that allows
  - Long train runs
  - Running long trains
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  - Participation by all members

4

This will be an ongoing project with many modeling opportunities after our move in.

The club members will also benefit from reliable operation opportunities

Our proposal also allows more flexible maintenance.



### Why

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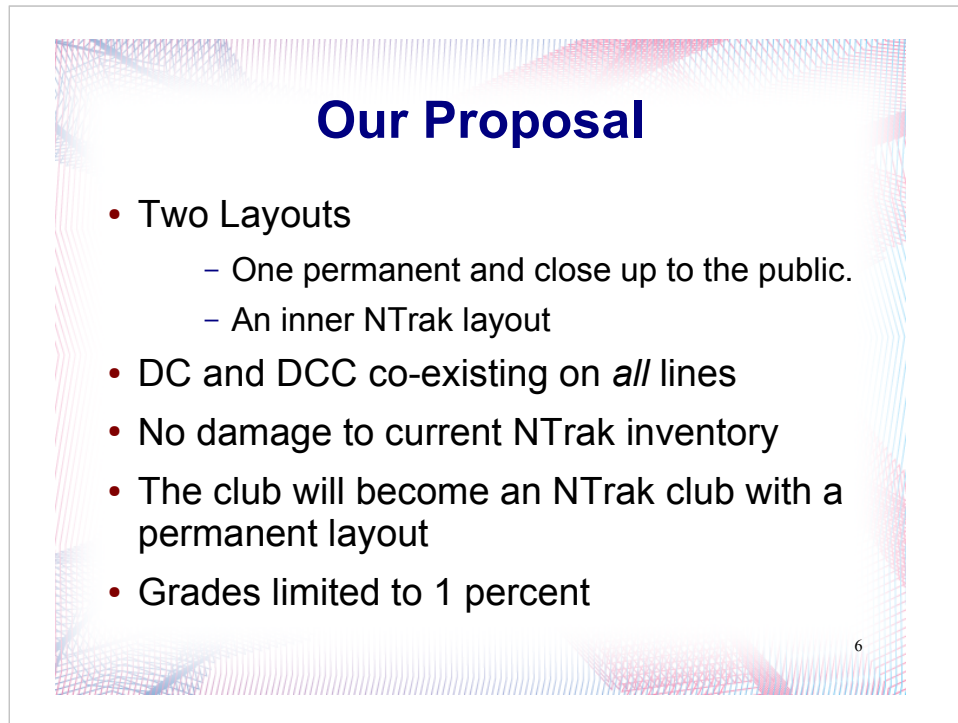
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We do not want Ntrak modules destroyed by the removal of back boards and side boards.

Recently the debate on the layout has gotten acrimonious over the implementation of DCC in preference to DC.

As exemplified by the recent to change DC versus DCC, we also believe that what has been voted in can be voted out.

The last vote on the “E” layout did not include a complete budget as witness the latest controversy over DCC.



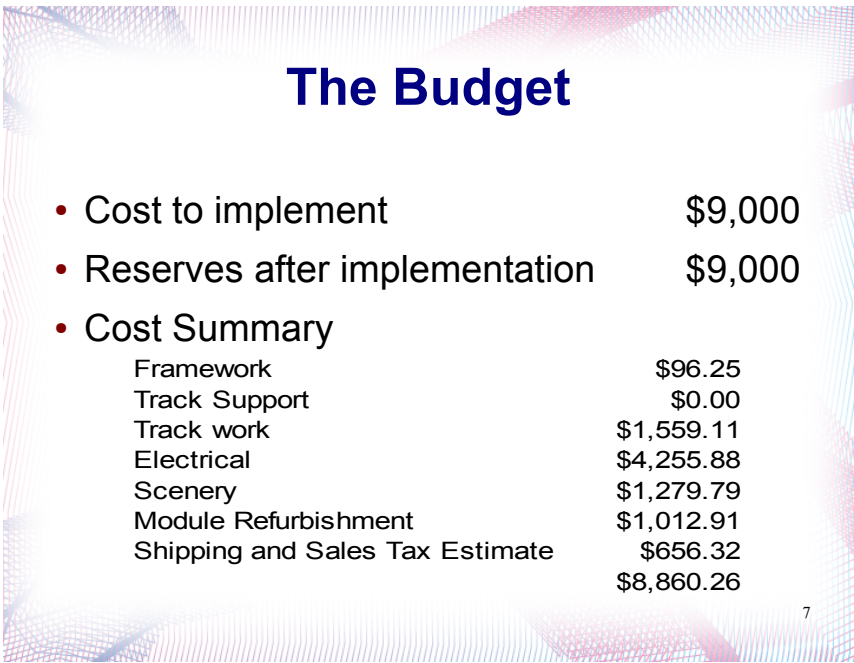
## Our Proposal

- Two Layouts
  - One permanent and close up to the public.
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6

SHOW THE LAYOUT CHART.

This proposal has a complete budget and realistic time line.



### The Budget

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7

This plan cuts back on initial expenditures by deferring some implementations such as: the full complement of DC control districts, DCC track detection and member train control, and complete detailed scenery.

The module refurbishment number is mostly a place holder SWAG.

We do not know the plans of the five C's chairmen, thus we do not have estimates for their work.

### Our Schedule

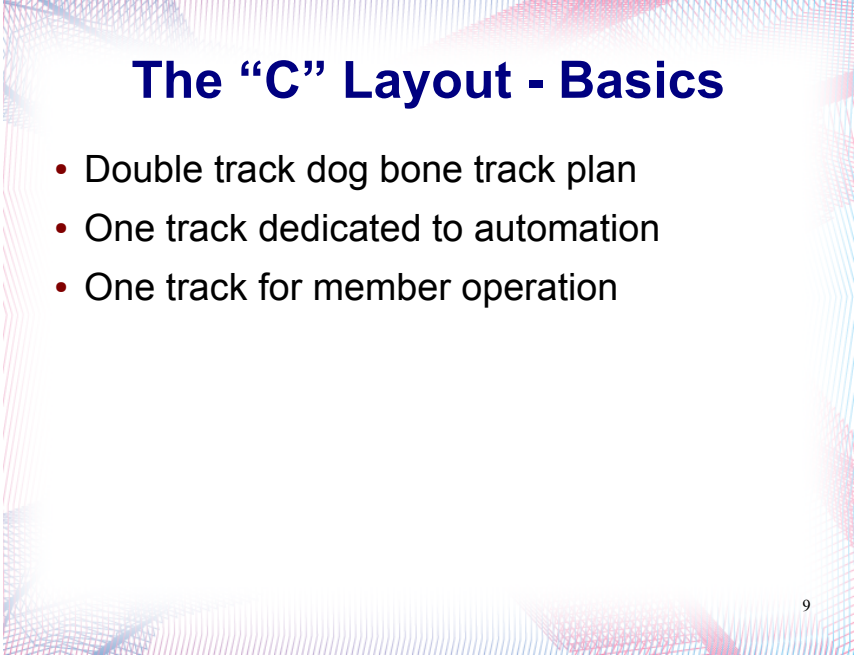
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8

This schedule has time built in to involve members in learning the various phases of model railroad building.

As an example, the framework has been pledged as doable in 6 weeks but 6 more weeks have been added for external delays.

Simultaneously, the five C's chairmen will develop their scenes on insert pallets. This does not do away with their needing assistance of other members in building the scenes.



## The "C" Layout - Basics

- Double track dog bone track plan
- One track dedicated to automation
- One track for member operation

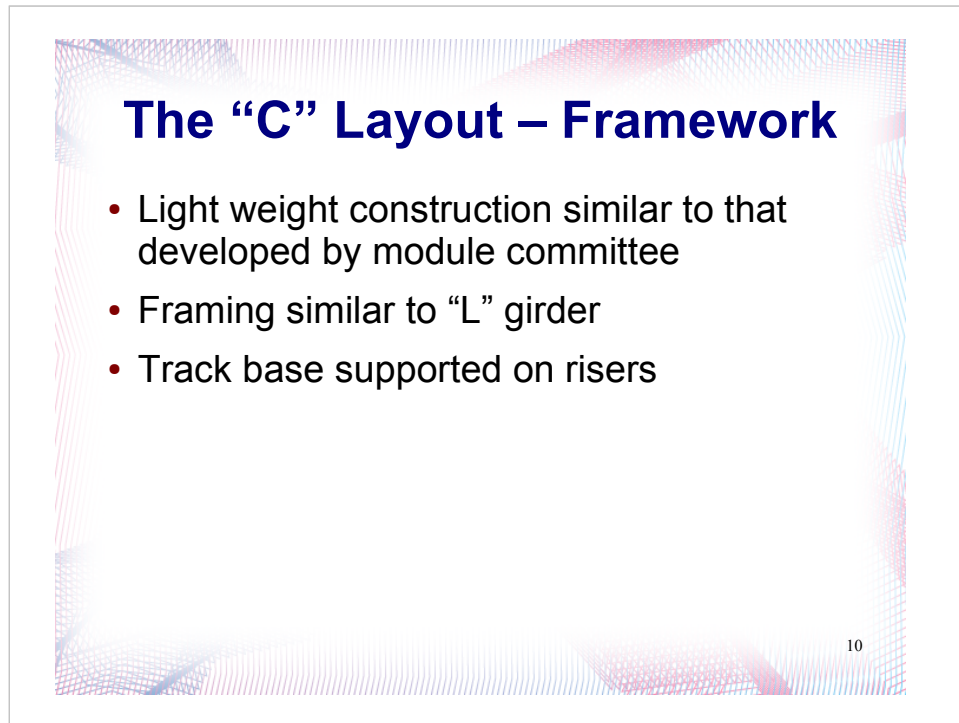
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Tracks will be within a thirty inch reach.

Curves will be 24 inches radius or greater.

The outer most line will be automated with no switches or other track disruptions.

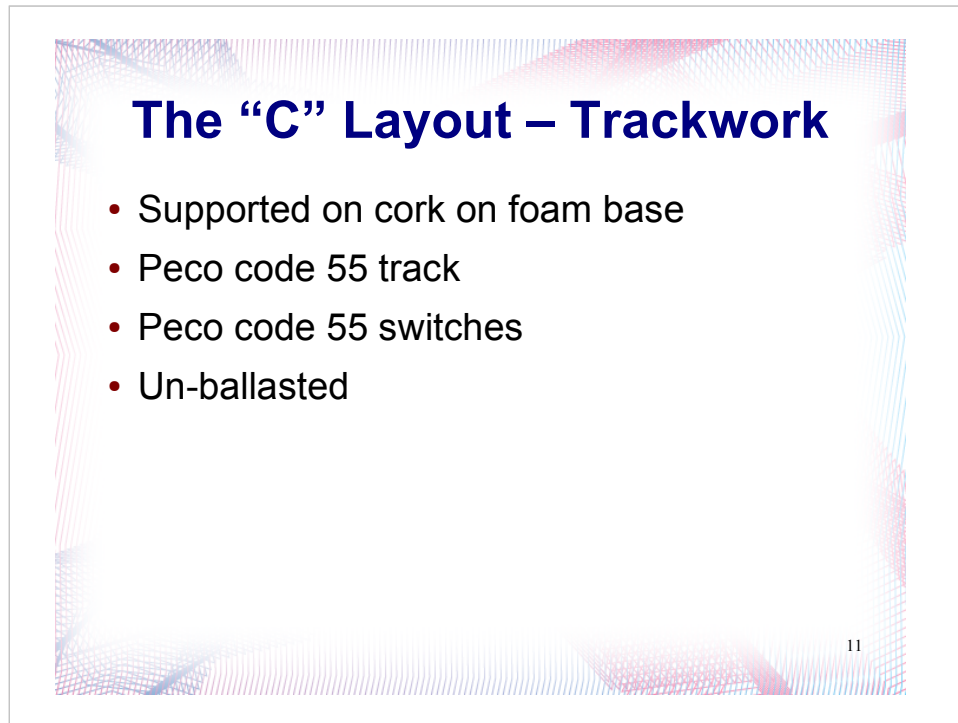
The inner line will be for the members and will contain sidings and numerous train stops.



The layout height will be at or near the wall height of 42 inches.

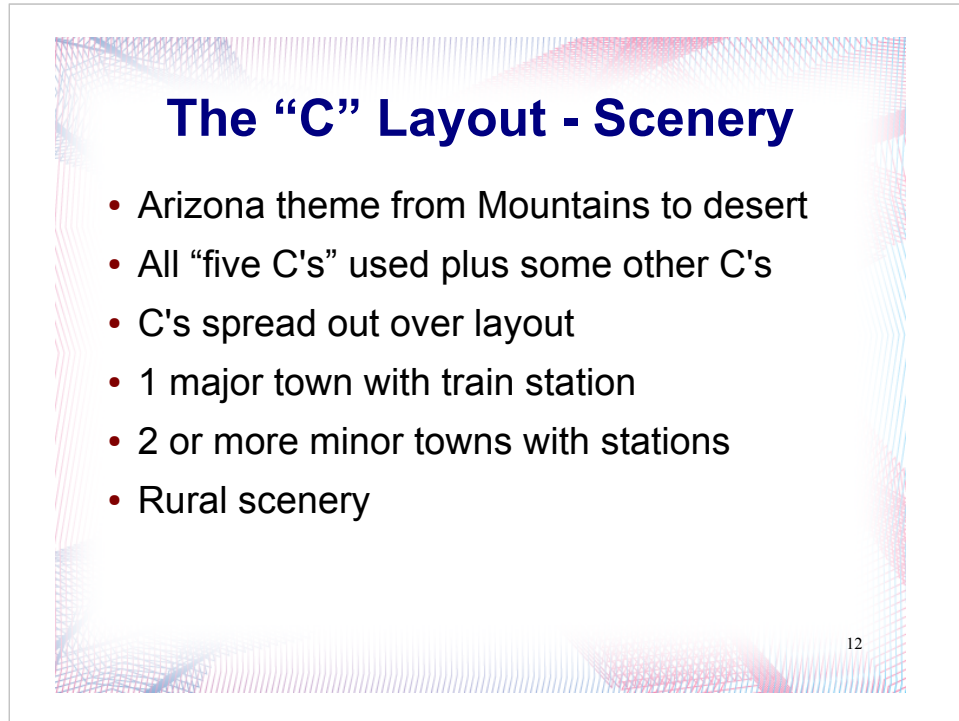
Skirting will be cloth over wood frame to reduce noise and cost and will be removable.

Back boards to support scenery and prevent damage are limited to about three to six inches in height.



The track will not be ballasted. This will allow for later removal and re-use for module refurbishment. This will also allow hand laying code 55 track with realistic ties at a later date..

The track plan shown is tentative until it is adjusted for the plans of the five C's chairmen.



**The "C" Layout - Scenery**

- Arizona theme from Mountains to desert
- All "five C's" used plus some other C's
- C's spread out over layout
- 1 major town with train station
- 2 or more minor towns with stations
- Rural scenery

12

- SHOW THE SCENERY CHART

The scenery drawing on this chart is a suggestion only.

Some additional C's could be: cutting timber, cinema, conmen, and construction.

Some scenes could include Monument valley or a river flood with a stupid motorist.

We have left room for Union station

We need the input of the five C's chairmen

## The "C" Layout - Electrical

- DC to DCC switchable
- Multiple DCC power districts
- Multiple DC electrical districts
- Three DC control districts per line

13

The outer line will be wired for 6 DC electrical blocks and will be capable of operating 2 or more automated trains.

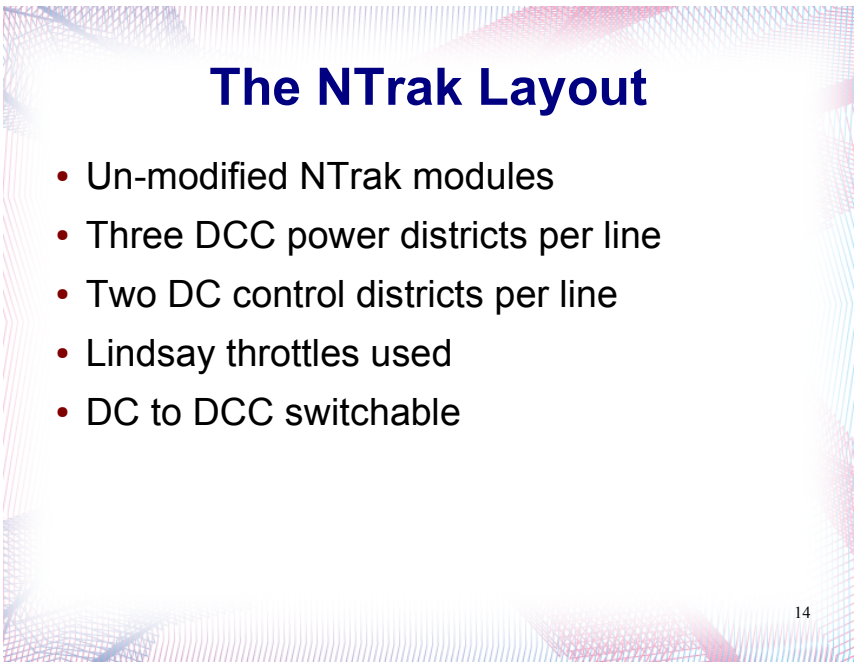
The inner line will have three DC control blocks.

### Some Definitions

**Power district:** The area powered by one DCC booster on one line. May span one or more electrical districts.

**Electrical district (or block):** Area powered by a DC power supply controlled by a throttle. One or more electrical districts may be within a power district.

**Control district (or block):** The electrical district or districts controlled by a single DC throttle.



## **The NTrak Layout**

- Un-modified NTrak modules
- Three DCC power districts per line
- Two DC control districts per line
- Lindsay throttles used
- DC to DCC switchable

14

The modules to be included in this layout are still to be determined. A more complicated arrangement may include more electrical districts. There should be no additional cost to add more electrical districts.

The control districts will expand in number as funds are available

## General Electrical Notes

- All lines are switchable from DC to DCC. The whole line will switch all at once.
- DC control blocks are limited in number to control cash outlay. They will be expanded in the future to allow more trains per line.
- RF remote electrical shut off each line will be provided.
- A “master” throttle for each line is probable.
- Each DCC booster will power 2 PSX-2 circuit protection modules.

15

A master throttle would tie all DC control blocks for one line together. This throttle would most likely be radio frequency controlled allowing the operator to exit the layout area and converse with the public.

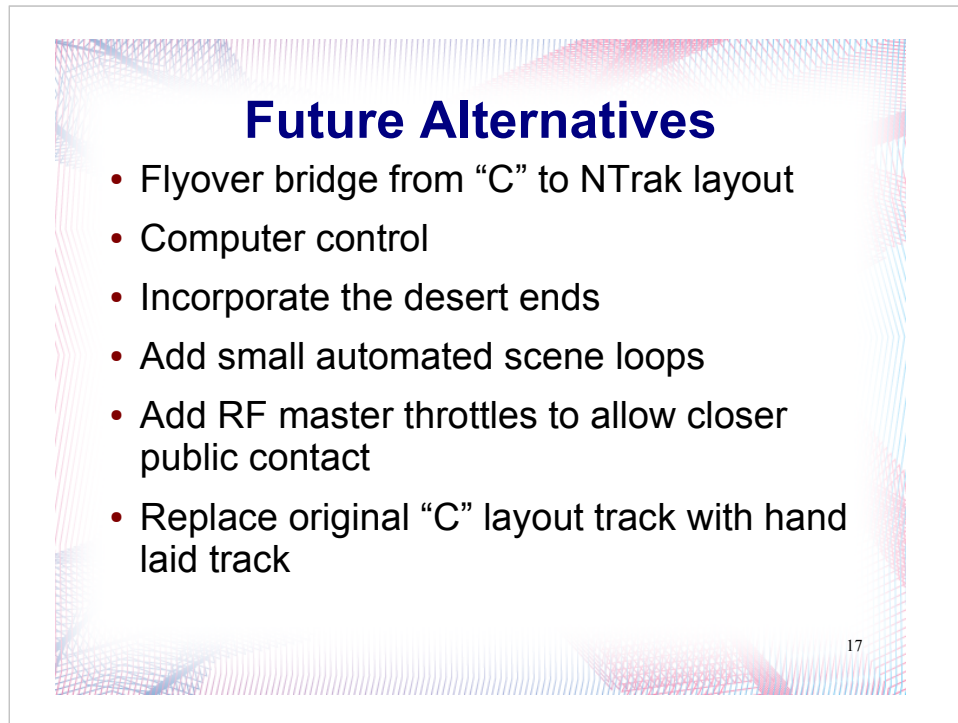
If DCC power districts do not provide sufficient power for multiple sound equipped and lighted trains, the power districts can be quickly split with the addition of new boosters and power supplies and separate assignment of the circuit protection modules.

## **Strengths and Advantages**

- This proposal can accommodate all the members
- Two Layouts up and running at Park opening
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- Maintains the original commitment to DC and DCC operation on all lines

16

Some expenses are deferred such as the full complement of DC throttles, the “master” throttles, and some buildings and scenes



### Future Alternatives

- Flyover bridge from "C" to NTrak layout
- Computer control
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- Add small automated scene loops
- Add RF master throttles to allow closer public contact
- Replace original "C" layout track with hand laid track

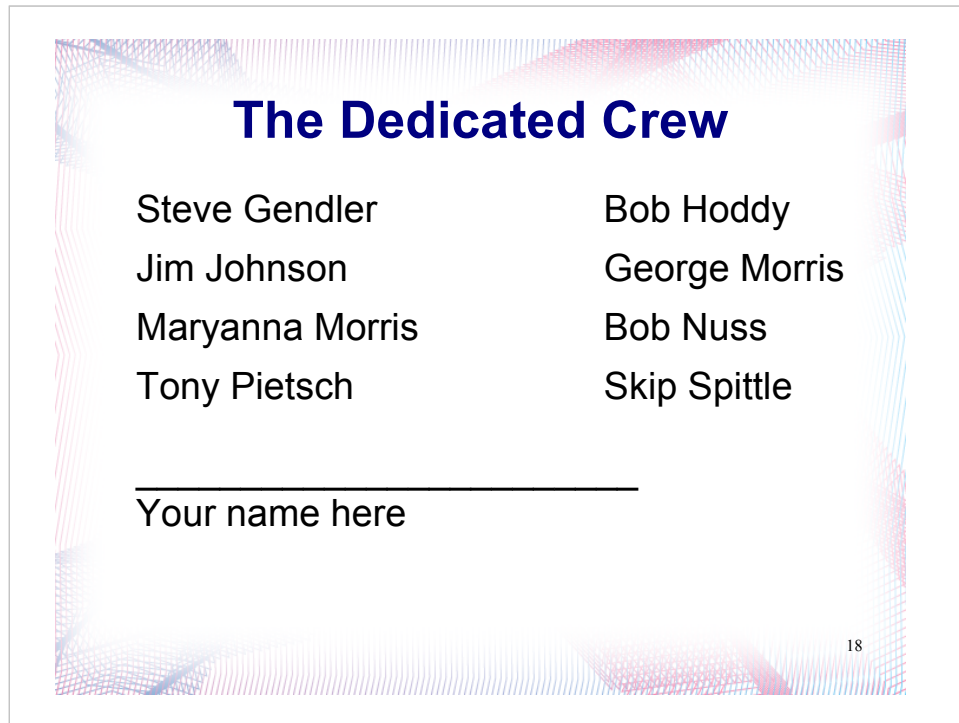
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Automation could be extended to the inner track of the "C" layout.

Members operating on the outer track could be added.

The permanent layout could be extended into the center of the layout area.

We could add DCC computer train control in all operating areas.




These members have committed to seeing this project to completion in October of 2010.

### **For questions ask:**

- Framework (bench work): Tony Pietsch
- Track base: Skip Spittle  
Tony Pietsch
- Track work: Skip Spittle
- Electrical: George Morris  
Skip Spittle
- Scenery: Bob Nuss

19

These are the leads for the areas listed and in some cases have drawings or product information to help in answering questions.



## Member Opportunities

- Learning in model railroading by helping in any phase of the construction
- Contribute to the automation by donating cars from your collection
- Satisfaction in modeling efforts added to the layouts that will be on public display.

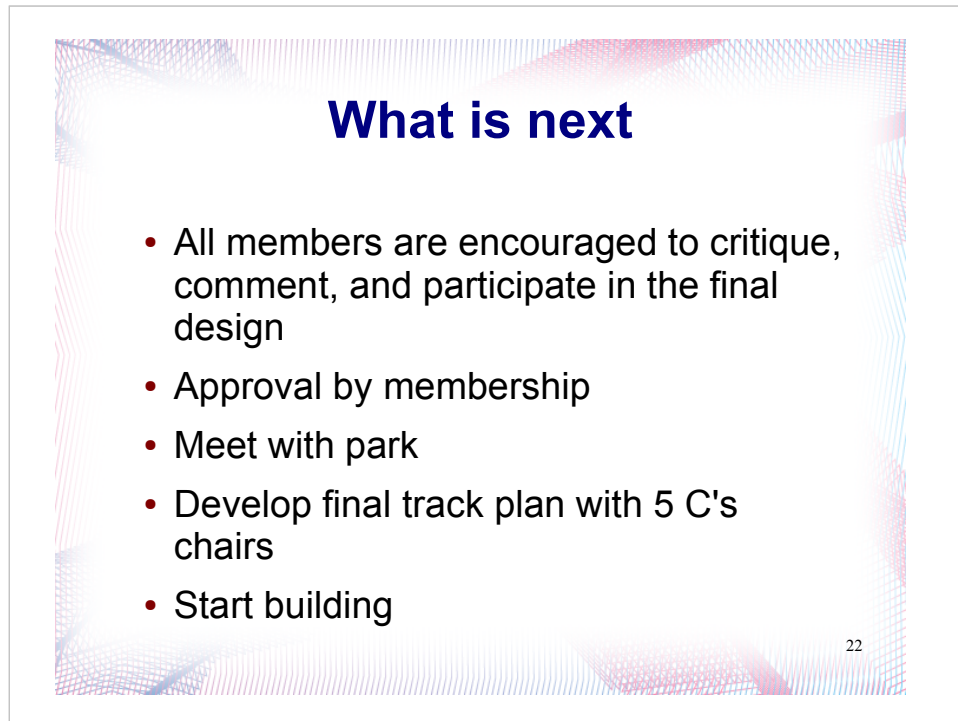
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Time has been added to the work tasks to allow our members hands on learning time of model railroading skills.

Cars donated do not have to be any particular coupler type as they will be changed to *Unimates*.

## What is not Included

- Disfiguration of NTrak modules.
- Dis-enfranchisement of members and their ability to run the train they want on the line they want.



### What is next

- All members are encouraged to critique, comment, and participate in the final design
- Approval by membership
- Meet with park
- Develop final track plan with 5 C's chairs
- Start building

22

A suggested committee to contact the park is Tony Pietsch who originated the idea and Jim Johnson who is a Scottsdale resident.

We need the five C's chairman to complete their plans and then meet with us to finalize the "C" layout plan.

A more detailed handout on this proposal is being distributed now.

At this time I would like to hear a motion in favor of this proposal to replace the "E" layout with the "C" and Ntrak layouts, using the budget and time schedule included. We will answer questions during the motion discussion.