

### **GENERAL NOTES**

OF WORK.

- UNDERTAKE ALL WORK IN ACCORDANCE WITH THE CURRENT NATIONAL BUILDING CODE.
- 2. ALL WORK TO COMPLY WITH THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION
- BUILDING TO REMAIN FULLY OCCUPIED DURING CONSTRUCTION. TAKE ALL MEANS NECESSARY TO ENSURE THE SAFETY OF THE INHABITANTS, VISITORS AND GUESTS OF THE BUILDING.
- 4. PROVIDE AND MAINTAIN BARRICADES AND OTHER PROTECTION AS REQUIRED AROUND AREA(S) OF WORK AT ALL TIMES. AS REQUIRED, OBTAIN LOCATES FROM ALL APPLICABLE UTILITIES PRIOR TO INSTALLING POSTS
- 5. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEANS TO PROTECT THE BASE BUILDING, INTERIOR FINISHES AND PERMANENT INSTALLATIONS. MAKE GOOD ALL ITEMS DAMAGED DURING CONSTRUCTION.
- CONSTRUCTION. REMOVE EXISTING AND LAY NEW SOD OVER ENTIRE GRASSY AREA AFFECTED BY WORK.

  7. DESIGN, MAINTAIN AND CONSTRUCT SCAFFOLDING IN ACCORDANCE WITH

6. PROTECT ALL HARD AND SOFT LANDSCAPING ITEMS DURING CONSTRUCTION. MAKE GOOD ANY ITEMS DAMAGED DURING

- CSA—S269.2, "ACCESS SCAFFOLDING FOR CONSTRUCTION PURPOSES".

  8. CONTRACTOR SHALL CHECK ALL DIMENSIONS IN FIELD PRIOR TO START
- 9. CONTRACTOR TO CONFIRM AS—BUILT DIMENSION FOR FIT AND CLEARANCE PRIOR TO FABRICATION OF NEW FIXED DIMENSIONED COMPONENTS
- 10. MAINTAIN SITE IN CLEAN AND ORDERLY CONDITION AT ALL TIMES. SITE TO BE CLEANED ON A DAILY BASIS.
- 11. MAINTAIN ACCESS TO ALL FIRE EXITS, EXTERIOR FIRE HYDRANTS, GAS VALVES AND STANDPIPE CONNECTIONS.
- 12. MAKE NO HOLES IN ANY STRUCTURAL COMPONENTS WITHOUT WRITTEN APPROVAL BY THE CONSULTANT.
- 13. WORK NOT INDICATED ON A PART OF THE DRAWINGS, BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES SHALL BE REPEATED.
- 14. MAINTAIN RECORD DRAWING SET ON SITE, ALONG WITH ALL OTHER CONTRACT DOCUMENTATION

### ITEMS OF WORK

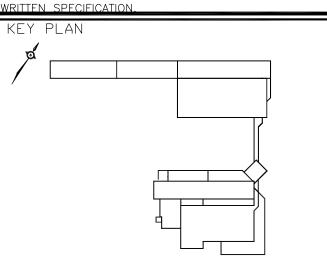
- REMOVE AND DISPOSE OF EXISTING ROOFING MEMBRANE SYSTEM INCLUDING CONCRETE PAVERS, STONE BALLAST, FILTER FABRIC, INSULATION, METAL FLASHINGS, WOOD CURBS AND ALL RELATED ACCESSORIES (AS DETAILED ON THE DRAWINGS) FOR THE ENTIRE ROOF AREA TO LIMITS SHOWN.
- 2. CONSTRUCT NEW PRESSURE TREATED WOOD CURBS AT ALL EXPANSION
- 3. CONSTRUCT NEW PRESSURE TREATED WOOD CURBS AT ALL PARAPETS.
- 4. ALL MECHANICAL UNITS TO BE LIFTED PRIOR TO INSTALL ROOFING SYSTEM AND METAL FLASHINGS AT SUPPORT CURBS. COORDINATE THIS WORK WITH UTILITIES (AS REQUIRED).
- 5. NEW CONVENTIONAL MODIFIED BITUMEN ROOFING SYSTEM TO BE SUPPLIED AND INSTALLED THROUGHOUT THE ROOF AREA SHOWN.
- 6. NEW PREFABRICATED VENT AND EXHAUST PIPE FLASHINGS TO BE SUPPLIED AND INSTALLED AT ALL EXISTING LOCATION UNLESS NOTED OTHERWISE.
- 7. NEW PREFINISHED METAL FLASHING TO BE SUPPLIED AND INSTALLED AT ALL PARAPET CAPS, WALL AND CURB LOCATIONS (AS DETAILED ON DRAWINGS).
- 8. NEW RETRO—FIT DRAINS TO BE SUPPLIED AND INSTALLED AT ALL ROOF DRAIN LOCATIONS. SIZE OF NEW DRAINS TO MATCH EXISTING PIPING. SUPPLY AND INSTALL ALL NECESSARY PIPING TO ACCOMMODATE NEW DRAIN INSTALLATION.
- 9. EXISTING EXPOSED ACCESS HATCH COVERS AND ACCESS LADDERS TO BE PAINTED (AS INDICATED, COLOUR AS SPECIFIED BY OWNER).
- 10. STRAIGHT EXHAUST VENTS TO BE PROVIDED WITH METAL CAPS.
- 11. REMOVE EXISTING METAL SIDING AS REQUIRED TO FACILITATE VAPOUR BARRIER AND ROOFING MEMBRANE CONNECTIONS TO EXISTING MEMBERS. REPLACE METAL SIDING AFTER ROOF MEMBRANE HAS BEEN COMPLETED.
- 12. ICE TANK ROOF: DUE TO THE USE OF THE BUILDING SPACE BELOW, ALL AREAS OF CONSTRUCTION MUST BE FULLY REINSTATED WITH INSULATION BY THE END OF EACH WORK DAY.

### LIST OF DRAWINGS

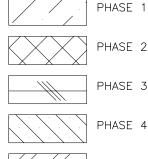
BE-16 TYPICAL DETAILS SHEET 2

BE-01 ROOF PLAN & GENERAL NOTES
BE-02 ROOF PLAN PHASE 1
BE-03 ROOF PLAN PHASE 2 (NOT INCLUDED IN THIS PHASE)
BE-04 ROOF PLAN PHASE 3 (NOT INCLUDED IN THIS PHASE)
BE-05 ROOF PLAN PHASE 4 (NOT INCLUDED IN THIS PHASE)
BE-06 ROOF PLAN PHASE 5 (NOT INCLUDED IN THIS PHASE)
BE-07 PHASE 1 DETAILS SHEET 1
BE-08 PHASE 1 DETAILS SHEET 2
BE-09 PHASE 2 DETAILS SHEET 1 (NOT INCLUDED IN THIS PHASE)
BE-10 PHASE 2 DETAILS SHEET 2 (NOT INCLUDED IN THIS PHASE)
BE-11 PHASE 2 DETAILS SHEET 3 (NOT INCLUDED IN THIS PHASE)
BE-12 PHASE 3 DETAILS SHEET 1 (NOT INCLUDED IN THIS PHASE)
BE-13 PHASE 4 DETAILS SHEET 1 (NOT INCLUDED IN THIS PHASE)
BE-14 PHASE 5 DETAILS SHEET 1 (NOT INCLUDED IN THIS PHASE)
BE-15 TYPICAL DETAILS SHEET 1

### DO NOT SCALE DRAWING. DIMENSIONS TO BE VERIFIED ON SITE. DRAWING TO BE READ IN CONJUNCTION WITH WRITTEN SPECIFICATION.



### CONTRACT PHASES



PHASE 2 (NOT INCLUDED IN CONTRACT)

PHASE 3 (NOT INCLUDED IN CONTRACT)

PHASE 4 (NOT INCLUDED IN CONTRACT)

PHASE 5 (NOT INCLUDED IN CONTRACT)

### ENGINEER'S STAMP

ISSUE	DESCRIPTION	DATE (DD/MM/YY)
1	ISSUED FOR CLIENT REVIEW 95%	05/04/12
2	ISSUED FOR TENDER	07/23/13



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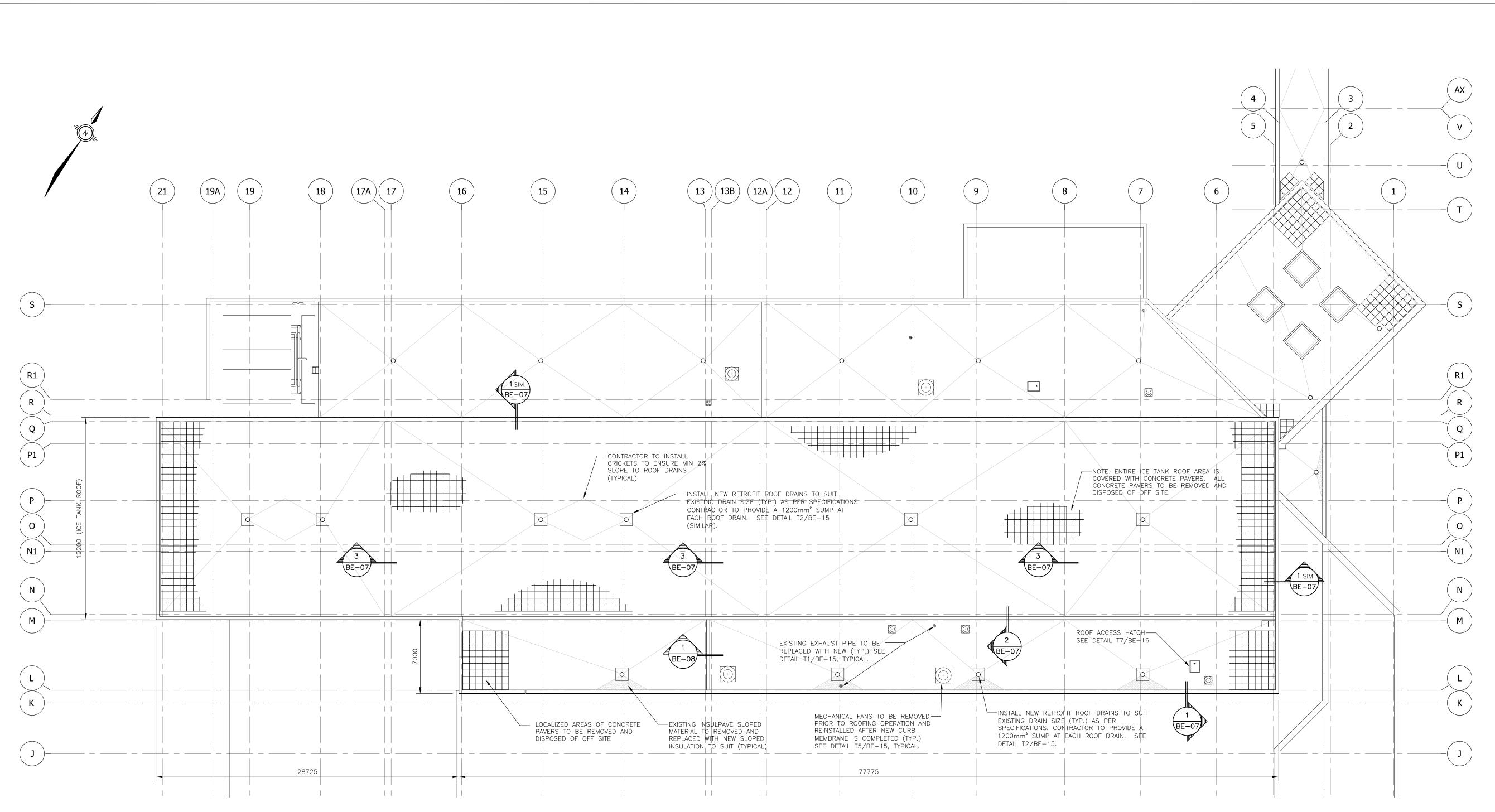
NATIONAL RESEARCH COUNCIL CANADA
INSTITUTE OF OCEAN TECHNOLOGY
ST JOHN'S, NEWFOUNDLAND

# ROOF REPLACEMENT PHASE 1, 2, 3,4 and 5

ROOF PLAN & GENERAL NOTES

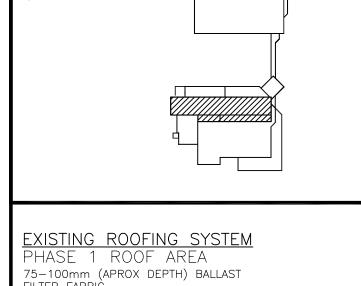
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DATE:	MARCH 2012	DRAWING No:
SCALE:	AS SHOWN	BE-01
DESIGN:	PTC/EL	DL 01
DRAWN:	EL	PROJECT No:
REVIEWED	: DN/SDT	2123161.00



ROOF PLAN PHASE 1

NOTE: ICE TANK ROOF; DUE TO THE USE OF THE BUILDING SPACE BELOW, ALL AREAS OF CONSTRUCTION MUST BE FULLY REINSTATED WITH INSULATION BY THE END OF EACH WORK DAY.



O NOT SCALE DRAWING. DIMENSIONS TO BE VERIFIED ON ITE. DRAWING TO BE READ IN CONJUNCTION WITH

75mm RIGID INSULATION 13mm FIBRE BOARD (INSULPAVE AREAS ONLY) INSULPAVE (SELECT AREAS — SEE DRAWINGS) 4-PLYS FELT MEMBRANE VAPOUR BARRIER PLYWOOD DECK COVER

### NEW ROOFING SYSTEM PHASE 1 ROOF AREA

MODIFIED BITUMEN CAP SHEET MODIFIED BITUMEN BASE SHEET ASPHALT RECOVERY BOARD 2 LAYERS 50mm RIGID INSULATION MODIFIED BITUMEN VAPOUR BARRIER
EXISTING 4-PLYS FELT MEMBRANE VAPOUR BARRIER EXISTING PLYWOOD DECK COVER

EXISTING ICE TANK ROOFING SYSTEM PHASE 1 ROOF AREA CONCRETE PAVERS

EPDM ROOF MEMBRANE 250mm XPS INSULATION (3 LAYERS) EPDM ROOF MEMBRANE POLYETHYLENE AIR VAPOUR BARRIER EXISTING PLYWOOD DECK EXISTING METAL DECK

### NEW ICE TANK ROOFING SYSTEM PHASE 1 ROOF AREA

MODIFIED BITUMEN CAP SHEET MODIFIED BITUMEN BASE SHEET ASPHALT RECOVERY BOARD NEW POLYISOCYANURATE INSULATION, MIN R50 NEW SELF ADHERED VAPOUR BARRIER EXISTING PLYWOOD DECK EXISTING METAL DECK

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### ROOF REPLACEMENT PHASE 1 **ROOF PLAN**

DATE:	MARCH 2012	DRAWING No:
SCALE:	AS SHOWN	BE-02
DESIGN:	PTC/EL	DL-02
DRAWN:	EL	PROJECT No:
REVIEWED	: DN/SDT	2123161.00
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<u>LEGEND</u>

O DECK DRAIN

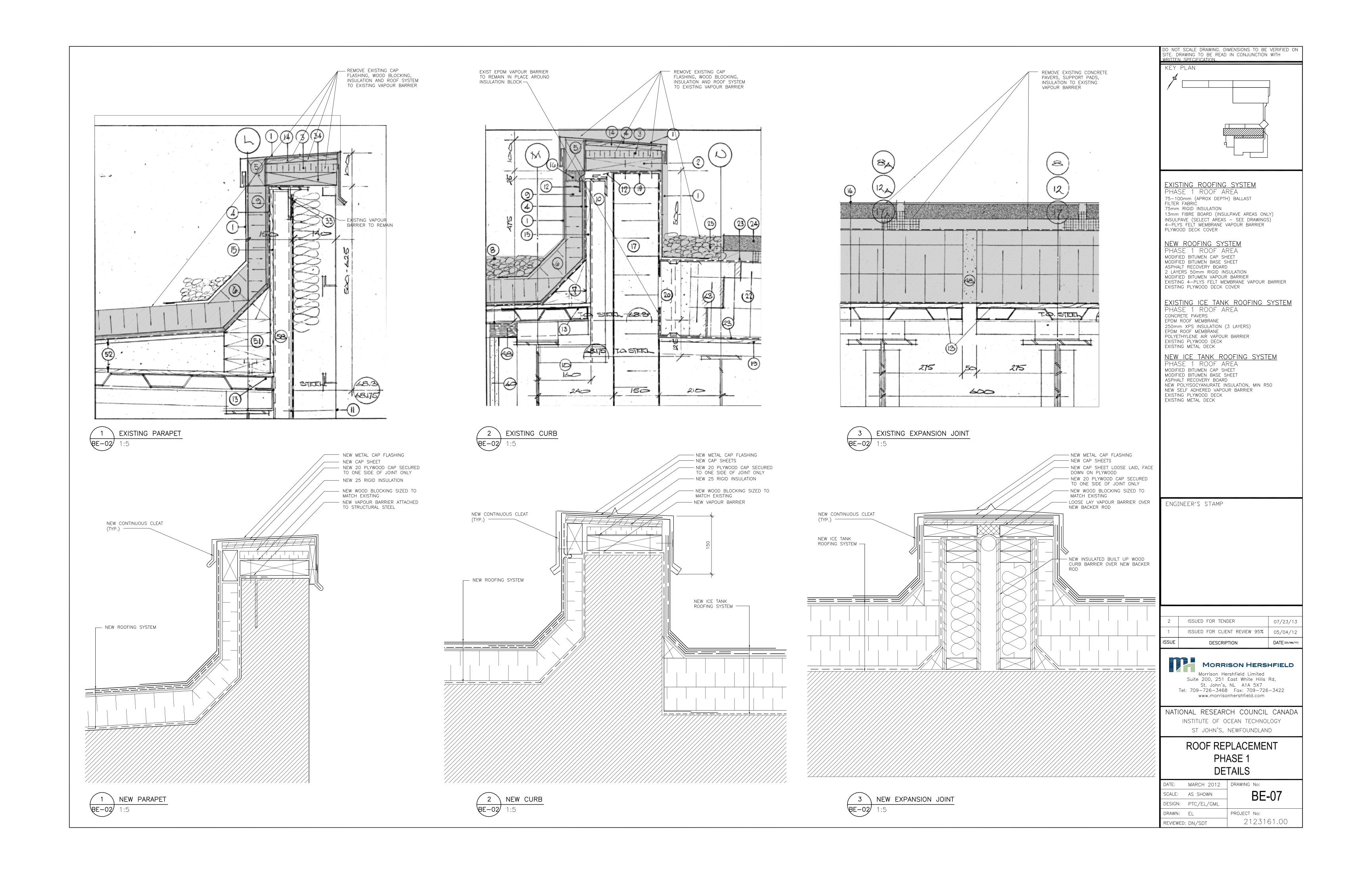
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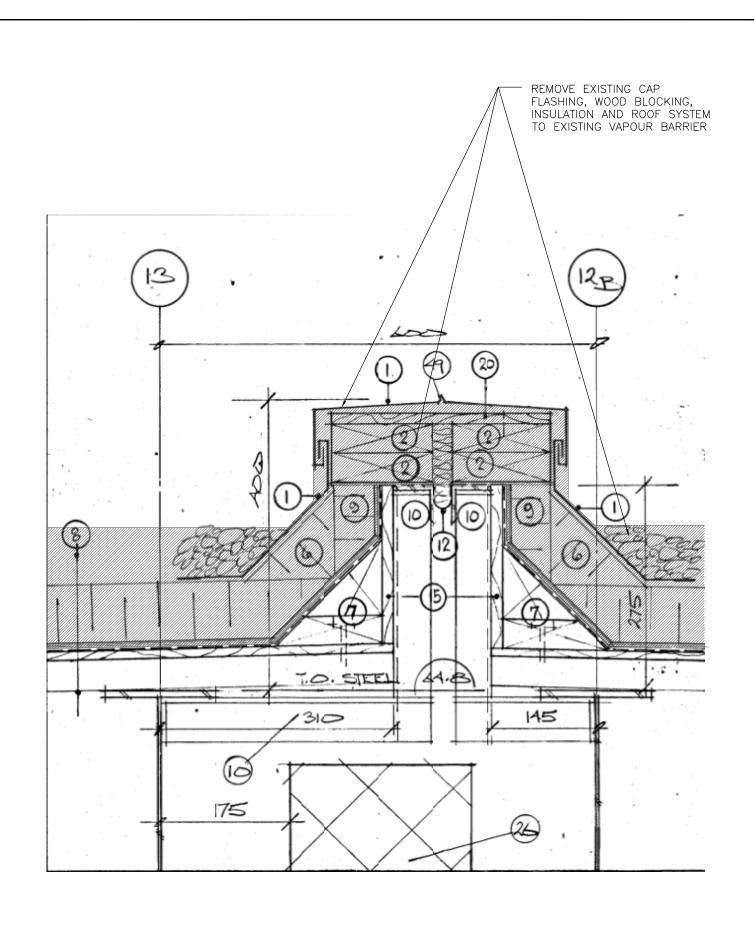
GENERATOR EXHAUST PIPE

ACCESS HATCH

VENT STACK

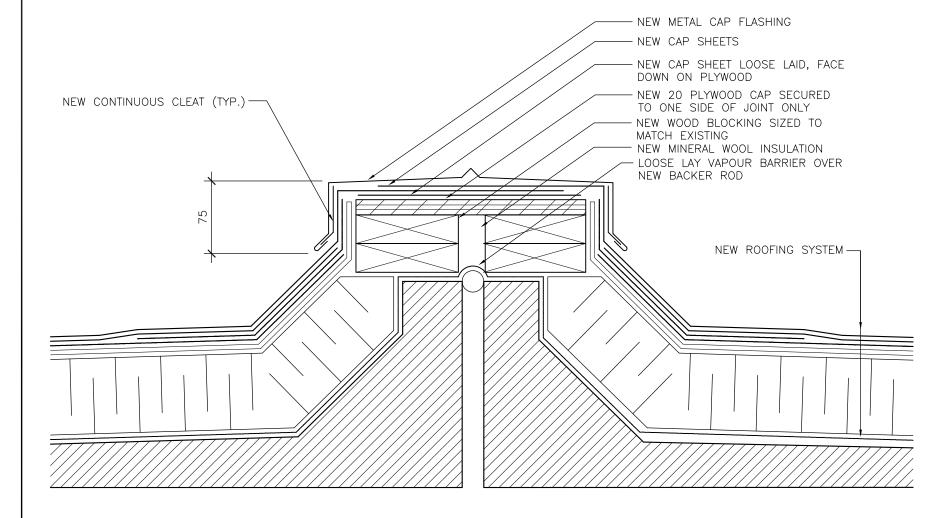
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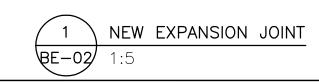




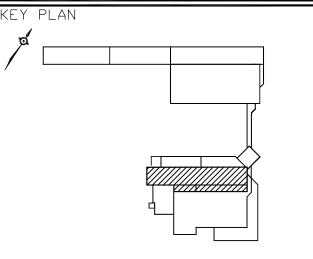


EXISTING EXPANSION JOINT





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### EXISTING ROOFING SYSTEM PHASE 1 ROOF AREA

75-100mm (APROX DEPTH) BALLAST FILTER FABRIC 75mm RIGID INSULATION 13mm FIBRE BOARD (INSULPAVE AREAS ONLY) INSULPAVE (SELECT AREAS — SEE DRAWINGS)
4-PLYS FELT MEMBRANE VAPOUR BARRIER
PLYWOOD DECK COVER

## NEW ROOFING SYSTEM PHASE 1 ROOF AREA MODIFIED BITUMEN CAP SHEET

MODIFIED BITUMEN BASE SHEET ASPHALT RECOVERY BOARD 2 LAYERS 50mm RIGID INSULATION MODIFIED BITUMEN VAPOUR BARRIER
EXISTING 4—PLYS FELT MEMBRANE VAPOUR BARRIER
EXISTING PLYWOOD DECK COVER

EXISTING ICE TANK ROOFING SYSTEM PHASE 1 ROOF AREA CONCRETE PAVERS

EPDM ROOF MEMBRANE 250mm XPS INSULATION (3 LAYERS) EPDM ROOF MEMBRANE POLYETHYLENE AIR VAPOUR BARRIER
EXISTING PLYWOOD DECK
EXISTING METAL DECK

NEW ICE TANK ROOFING SYSTEM
PHASE 1 ROOF AREA
MODIFIED BITUMEN CAP SHEET MODIFIED BITUMEN BASE SHEET ASPHALT RECOVERY BOARD NEW POLYISOCYANURATE INSULATION, MIN R50
NEW SELF ADHERED VAPOUR BARRIER
EXISTING PLYWOOD DECK
EXISTING METAL DECK

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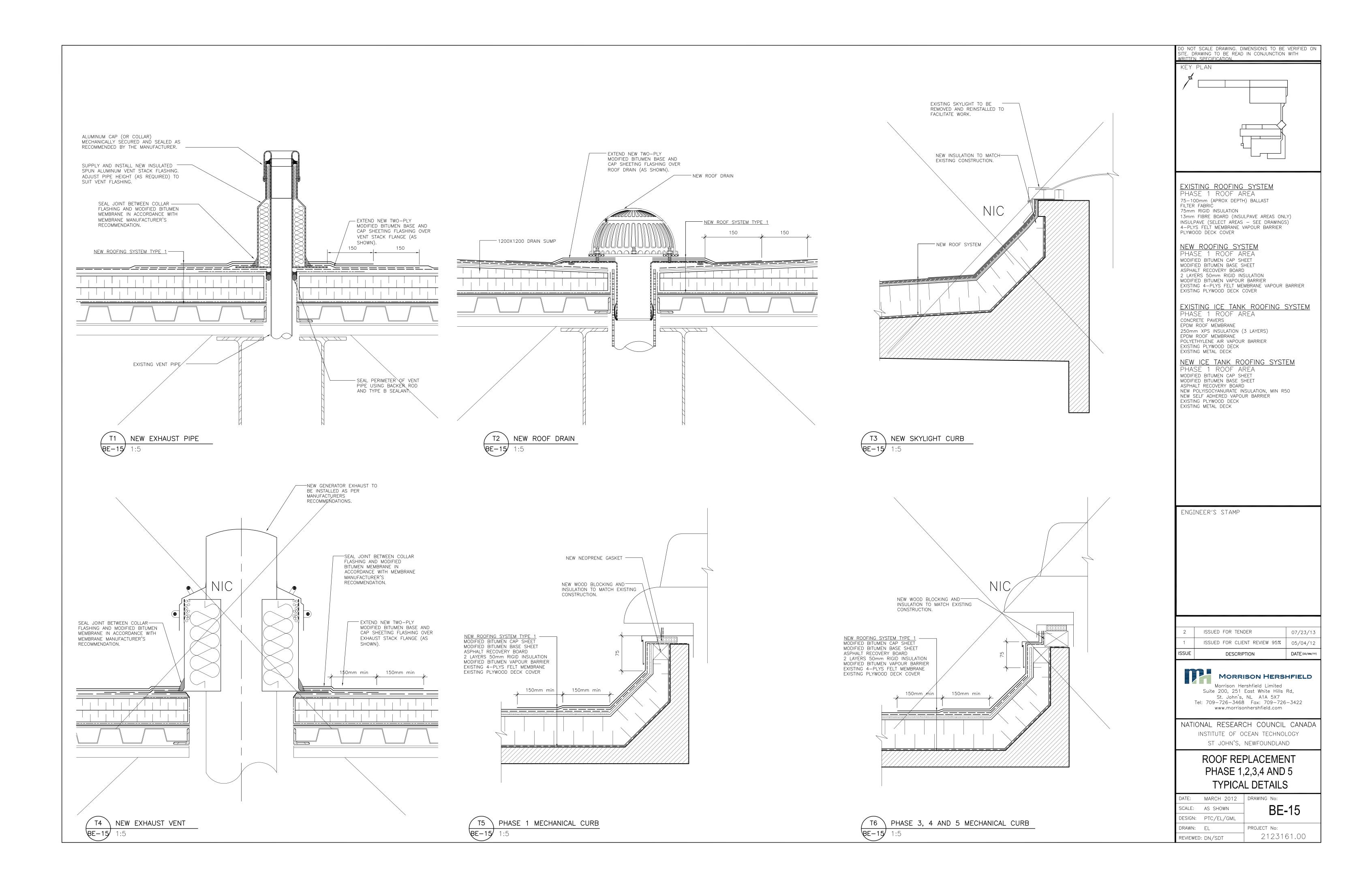


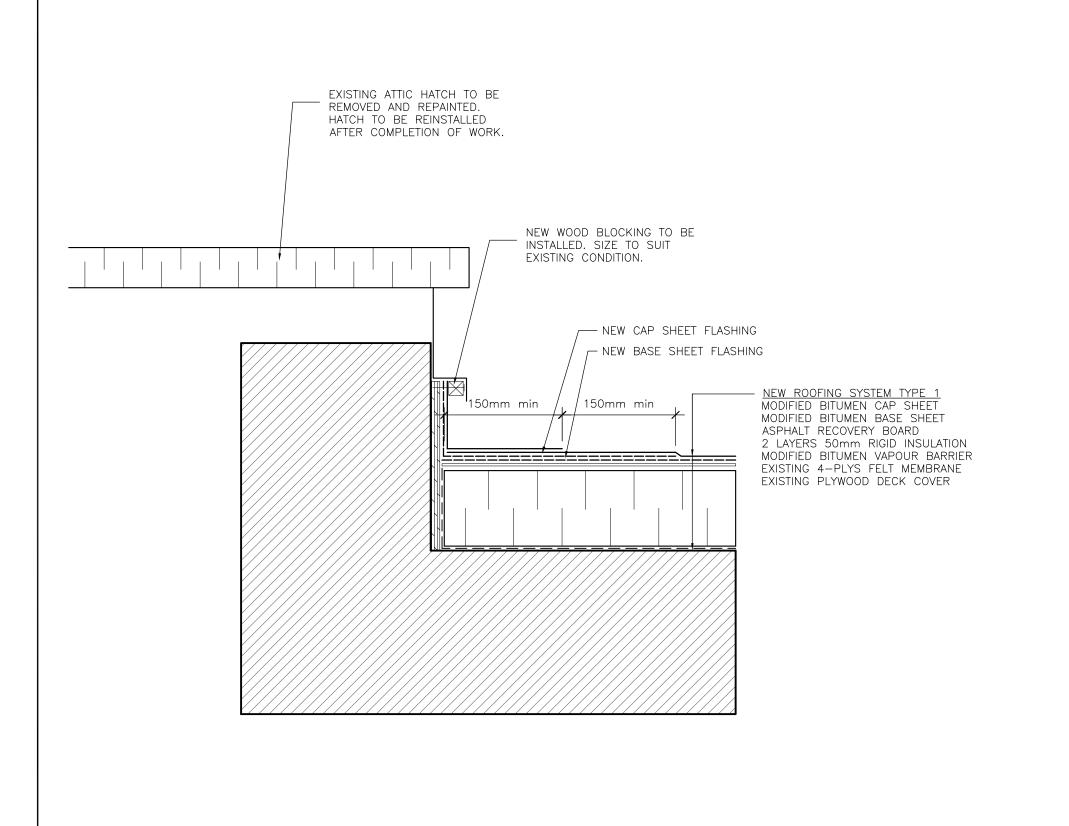
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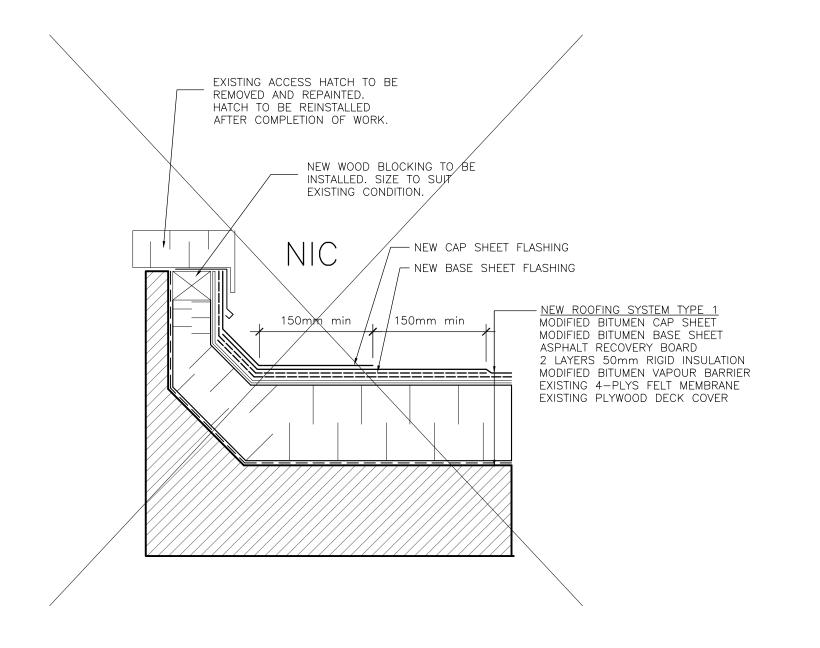
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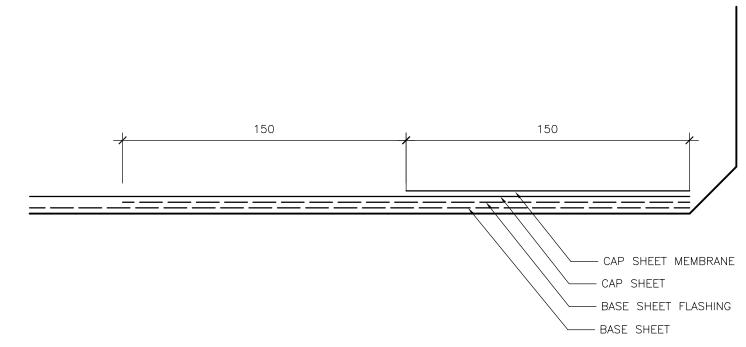
### ROOF REPLACEMENT PHASE 1 **DETAILS**

DATE:	MARCH 2012	DRAWING No:
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REVIEWED:	: DN/SDT	2123161.00





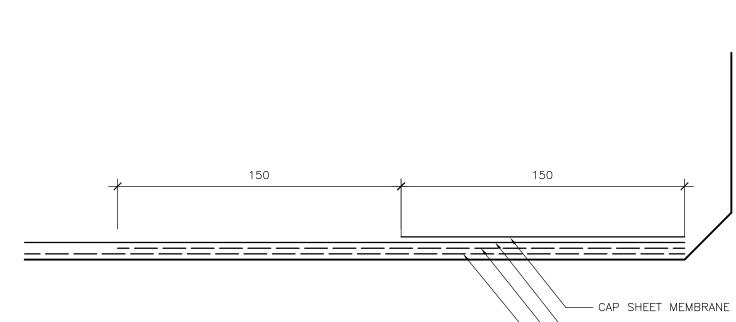




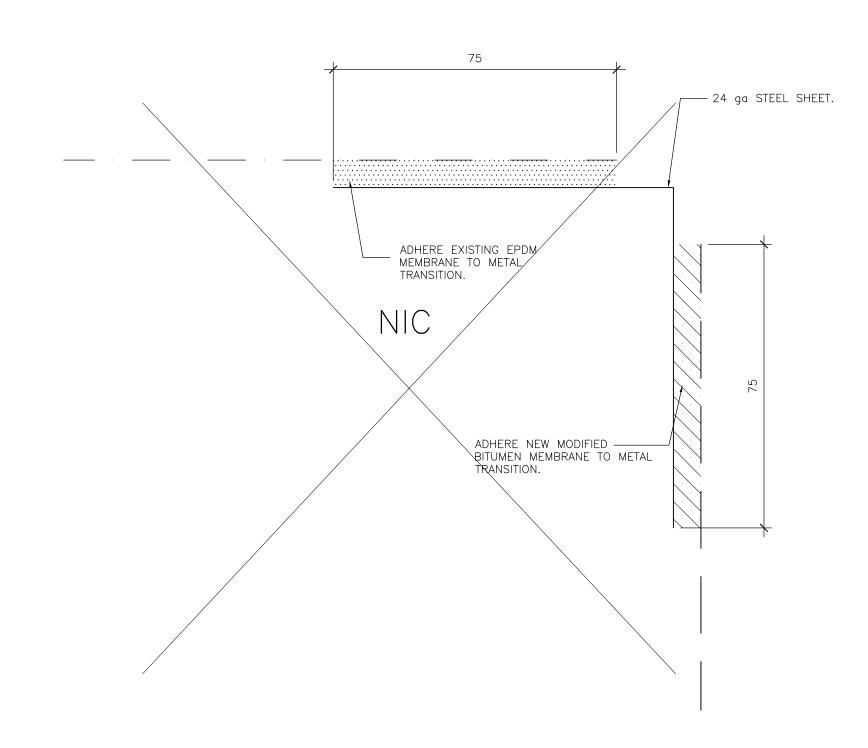




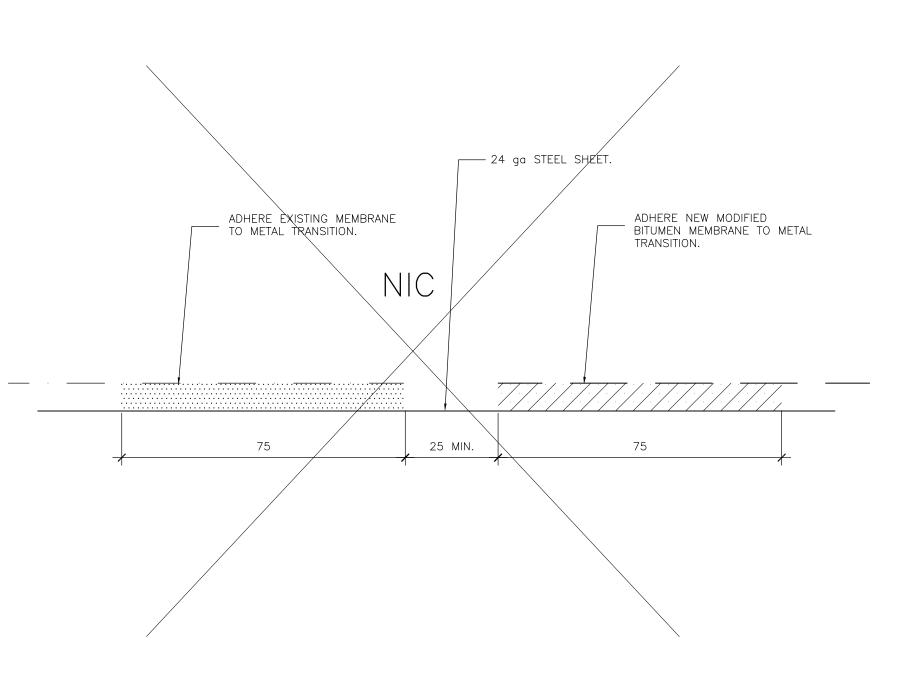




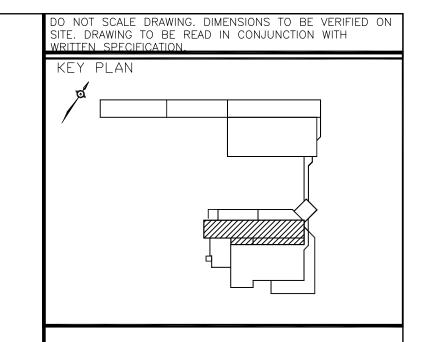








TYPICAL TRANSITION DETAIL AT EPDM MEMBRANE



## EXISTING ROOFING SYSTEM PHASE 1 ROOF AREA

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NEW ROOFING SYSTEM PHASE 1 ROOF AREA modified bitumen cap sheet MODIFIED BITUMEN BASE SHEET ASPHALT RECOVERY BOARD 2 LAYERS 50mm RIGID INSULATION MODIFIED BITUMEN VAPOUR BARRIER
EXISTING 4-PLYS FELT MEMBRANE VAPOUR BARRIER
EXISTING PLYWOOD DECK COVER

EXISTING ICE TANK ROOFING SYSTEM PHASE 1 ROOF AREA CONCRETE PAVERS EPDM ROOF MEMBRANE 250mm XPS INSULATION (3 LAYERS) EPDM ROOF MEMBRANE

### EXISTING PLYWOOD DECK EXISTING METAL DECK

POLYETHYLENE AIR VAPOUR BARRIER

NEW ICE TANK ROOFING SYSTEM
PHASE 1 ROOF AREA
MODIFIED BITUMEN CAP SHEET MODIFIED BITUMEN BASE SHEET ASPHALT RECOVERY BOARD NEW POLYISOCYANURATE INSULATION, MIN R50
NEW SELF ADHERED VAPOUR BARRIER
EXISTING PLYWOOD DECK
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ROOF REPLACEMENT PHASE 1,2,3,4 AND 5 TYPICAL DETAILS

DATE:	MARCH 2012	DRAWING No:
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