NEW TENANT IMPROVEMENT ROOF INSTALLATION GUIDELINES

1. GENERAL CRITERIA:

- a. A city permit shall be obtained for all work performed. Upon completion of work, a copy of the signed off city permit card or other form of final acceptance by the city shall be provided to The Irvine Company.
- b. Structural engineer's stamped drawings for all new framed openings within the plywood substrate shall be provided for mechanical unit installations.
- c. Where required by the city or building owner, mechanical equipment screens shall be provided within the improvement scope of work. Equipment screens shall be constructed of 26 gauge, prepainted, corrugated sheet metal panels installed on flashed sleeper supports.
- d. All curbs and platforms shall extend a minimum 8 inches above the roof membrane surface and shall be incorporated into the existing roof assembly per the standards established within the specification.
- e. All abandoned, unused mechanical equipment units, penetrations, lines, supports, etc., are to be removed as part of the improvement scope of work. Unused openings in substrate are to be eliminated (to match existing) and the affected membrane area is to be repaired with the materials indicated in the accompanying detail drawings.
- f. Color of roofing materials used to incorporate roofing materials into roofing is to match the color of the existing roof system.

2. NEW MECHANICAL UNIT INSTALLATIONS:

- a. New mechanical units are to be installed on either platforms, prefabricated metal curbs or wood sleepers. All exposed wood sleepers are be either pressure treated lumber or redwood installed on gapped walkpad material.
- b. New mechanical unit platforms are to be equipped with 22 gauge galvanized sheet metal flashing pans with independent waterproofing underlayments.

- c. Mechanical units installed on platforms or wood sleepers are to be equipped with independent isolator pads, minimum 4 per unit, and sheet metal seismic straps, minimum 4 per unit.
- d. Condensation drain lines are to be provided for all mechanical unit installations. Condensation drain lines are to be connected to interior drains where feasible or extended to the closest internal drain/primary scupper.

3. NEW PLUMBING/ELECTRICAL PENETRATIONS:

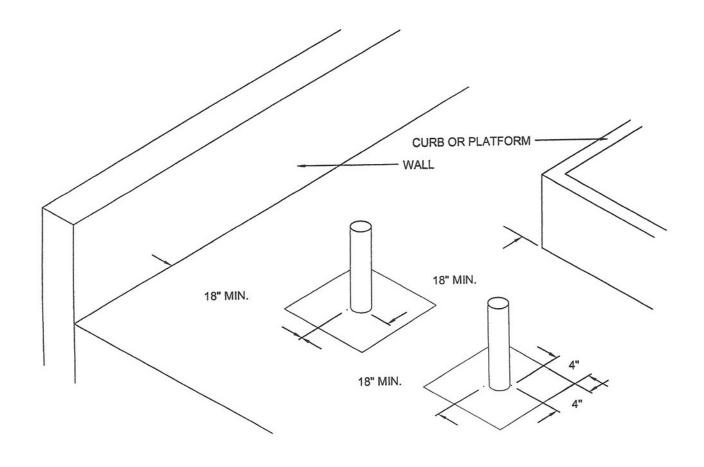
a. All penetrations are to receive new lead flashings wherever feasible or galvanized sheet metal roof jacks.

4. MECHANICAL UNIT REPLACEMENTS:

- a. Replacement of mechanical units is to include replacement of sheet metal pan cover at existing platform or replacement of wood sleeper supports.
- b. Replacement of unit is to include providing isolator pads and sheet metal straps identified in Item "2-c" above.
- c. Work for improvement is to include cleaning and resealing of all mechanical equipment duct work.

5. MISCELLANEOUS:

- a. Sheet metal/lead flashings are to be provided at all penetrations.
- b. Plumbing and electrical lines transversing the roof membrane surface are to be equipped with wood block supports with walkpad material bases at 5 foot on center intervals. Wood blocks are to be secured to lines with sheet metal straps.



ALL PENETRATIONS SHALL BE LOCATED A MIN. 18" OUT OF WATERWAYS & DRAINAGE AREAS, AS WELL AS A MIN. 18" FROM OTHER PENETRATIONS OR PROJECTIONS, SUCH AS PIPES, WALLS, CURBS, ETC.

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NOTES:

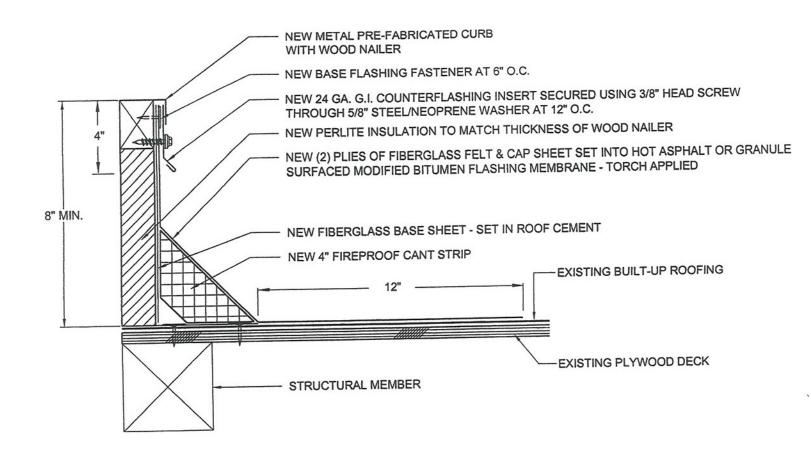
PROJECT NAME:
THE IRVINE COMPANY
TENANT IMPROVEMENT

DETAILS

DETAIL DESCRIPTION:

PENETRATION SPACING

IRC PROJECT NO:	00.0000
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122PC01
SCALE:	N.T.S.



- 1. CLEAN & PRIME ENTIRE TIE-IN AREA
- 2. SEAL ALL CORNERS WITH 3-COURSE APPLICATION OR 8" OVAL GUSSET OF GRANULAR SURFACED MODIFIED BITUMEN.
- 3. COAT SURFACE OF ALL ROOF CEMENT WITH ALUMINUM COATING.

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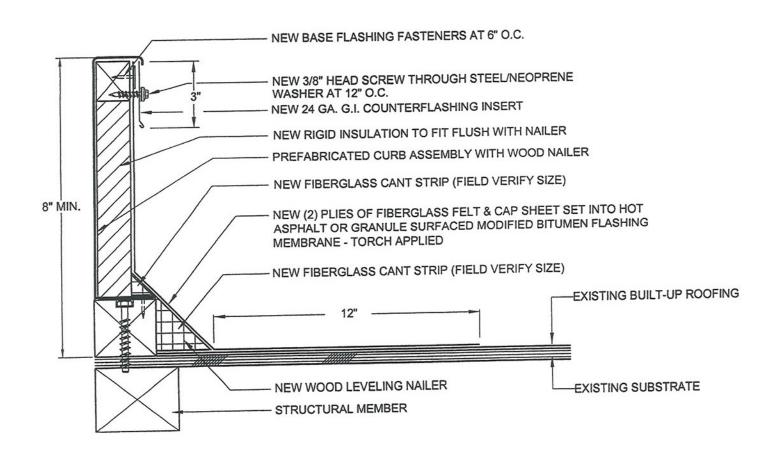
NOTES:

PROJECT NAME: THE IRVINE COMPANY TENANT IMPROVEMENT DETAILS

DETAIL DESCRIPTION:

PREFABRICATED CURB

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IRC PROJECT NO:	00.0000
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122MC02
SCALE:	N.T.S.



- 1. CLEAN & PRIME ENTIRE TIE-IN AREA
- 2. SEAL ALL CORNERS WITH 3-COURSE APPLICATION OR 8" OVAL GUSSET OF GRANULAR SURFACED MODIFIED BITUMEN.
- 3. COAT SURFACE OF ALL ROOF CEMENT WITH ALUMINUM COATING.

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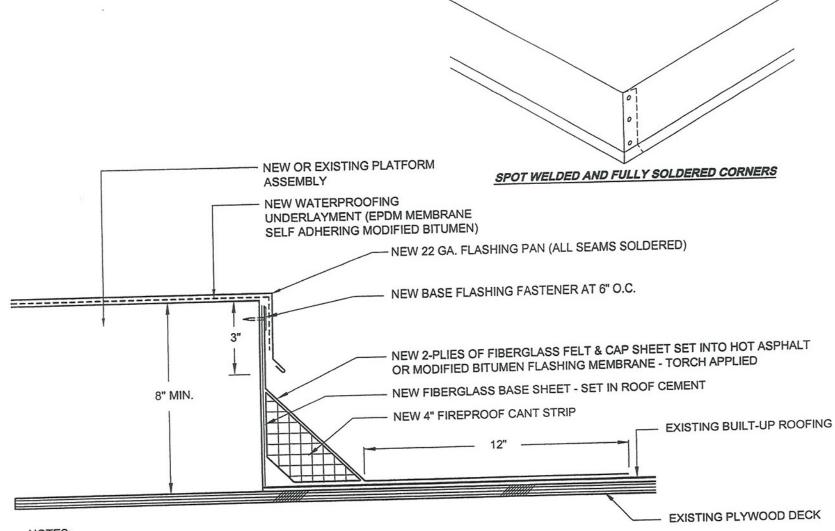
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PROJECT NAME: THE IRVINE COMPANY TENANT IMPROVEMENT DETAILS

DETAIL DESCRIPTION:

PREFABRICATED CURB

IRC PROJECT NO:	00.0000
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122MC01
SCALE:	N.T.S.



- 1. CLEAN & PRIME ENTIRE TIE-IN AREA
- 2. SEAL ALL CORNERS WITH 3-COURSE APPLICATION OR 8" OVAL GUSSET OF GRANULAR SURFACED MODIFIED BITUMEN.
- 3. COAT SURFACE OF ALL ROOF CEMENT WITH ALUMINUM COATING.
- 4. ANY SECUREMENT OF UNITS OR SUPPORTS INTO THE HORIZONTAL PLATFORM SURFACE SHALL BE SEALED WITH URETHANE CAULKING APPLICATION.

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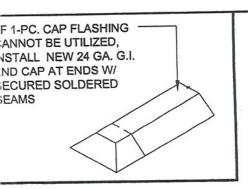
NOTES:

PROJECT NAME:
THE IRVINE COMPANY
TENANT IMPROVEMENT
DETAILS

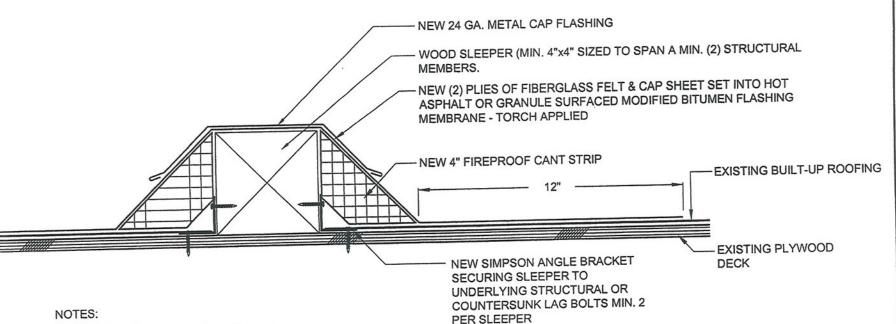
DETAIL DESCRIPTION:

PLATFORM

IRC PROJECT NO:	00.0000
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122NP01
SCALE:	N.T.S.



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- 1. CLEAN & PRIME ENTIRE TIE-IN AREA
- 2. SEAL ALL CORNERS WITH 3-COURSE APPLICATION OR 8" OVAL GUSSET OF GRANULAR SURFACED MODIFIED BITUMEN.
- 3. COAT SURFACE OF ALL ROOF CEMENT WITH ALUMINUM COATING.
- 4. APPLY URETHANE SEALANT TO SEAL SCREWS/BOLTS THROUGH METAL CAP FLASHING.

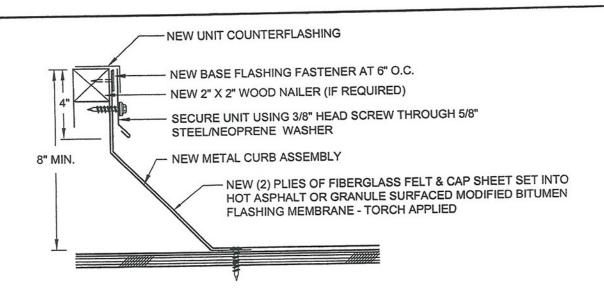
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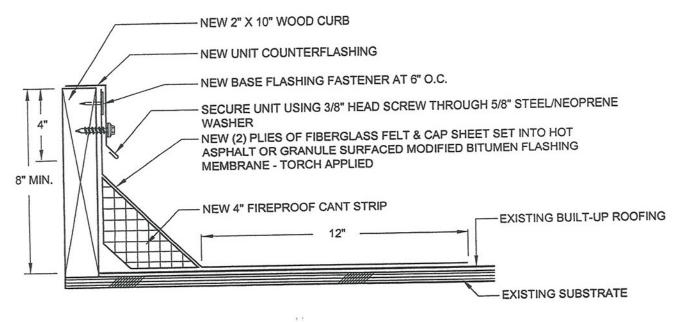
PROJECT NAME: THE IRVINE COMPANY TENANT IMPROVEMENT DETAILS

DETAIL DESCRIPTION:

FLASHED SLEEPER

IRC PROJECT NO:	00000.00
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122FS01
SCALE:	N.T.S.





- 1. CLEAN & PRIME ENTIRE TIE-IN AREA
- 2. SEAL ALL CORNERS WITH 3-COURSE APPLICATION OR 8" OVAL GUSSET OF GRANULAR SURFACED MODIFIED BITUMEN.
- 3. COAT SURFACE OF ALL ROOF CEMENT WITH ALUMINUM COATING.

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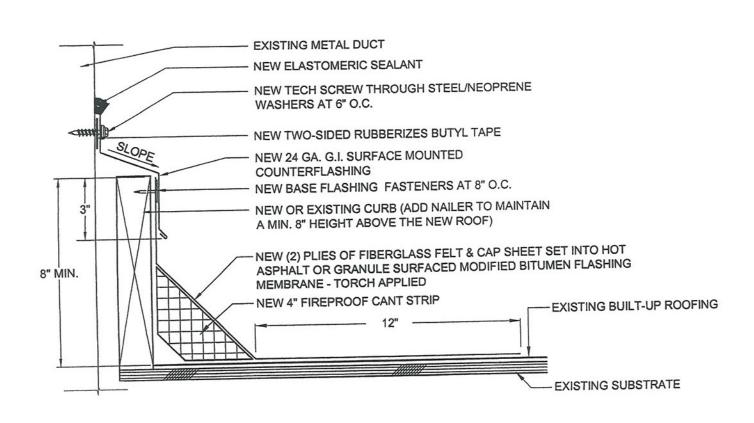
PROJECT NAME:
THE IRVINE COMPANY
TENANT IMPROVEMENT

DETAILS

DETAIL DESCRIPTION:

TYPICAL CURB

IRC PROJECT NO:	00000.00
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122TC01
SCALE:	N.T.S.



- 1. CLEAN & PRIME ENTIRE TIE-IN AREA
- 2. SEAL ALL CORNERS WITH 3-COURSE APPLICATION OR 8" OVAL GUSSET OF GRANULAR SURFACED MODIFIED BITUMEN.
- 3. COAT SURFACE OF ALL ROOF CEMENT WITH ALUMINUM COATING.

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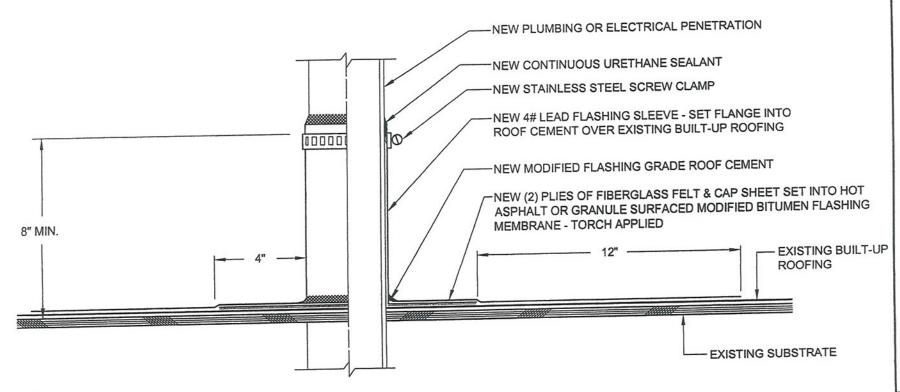
PROJECT NAME:
THE IRVINE COMPANY
TENANT IMPROVEMENT

DETAIL DESCRIPTION:

DUCT FLASHING

DETAILS

IRC PROJECT NO:	00.0000
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122DF01
SCALE:	N.T.S.



1. IF SPLIT LEAD SLEEVE IS NECESSARY, A CONTINUOUS LEAD SOLDER WILL BE REQUIRED.

11

- 2. CLEAN AND PRIME THE ENTIRE TIE-IN AREA.
- 3. COAT EXPOSED ROOF CEMENT WITH ALUMINUM.

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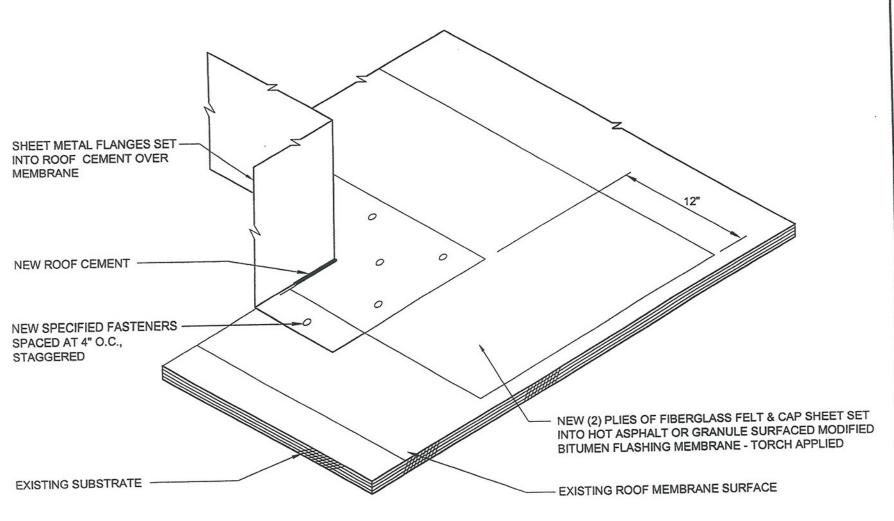
PROJECT NAME:

THE IRVINE COMPANY
TENANT IMPROVEMENT
DETAILS

DETAIL DESCRIPTION:

LEAD PIPE FLASHING CLAMPPED

IRC PROJECT NO:	00.0000
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122CL01
SCALE:	N.T.S.



- 1. CLEAN & PRIME ENTIRE TIE-IN AREA
- 2. COAT SURFACE OF ALL ROOF CEMENT WITH ALUMINUM COATING.

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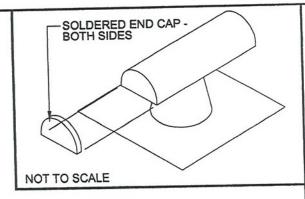
PROJECT NAME:
THE IRVINE COMPANY
TENANT IMPROVEMENT

DETAIL DESCRIPTION:

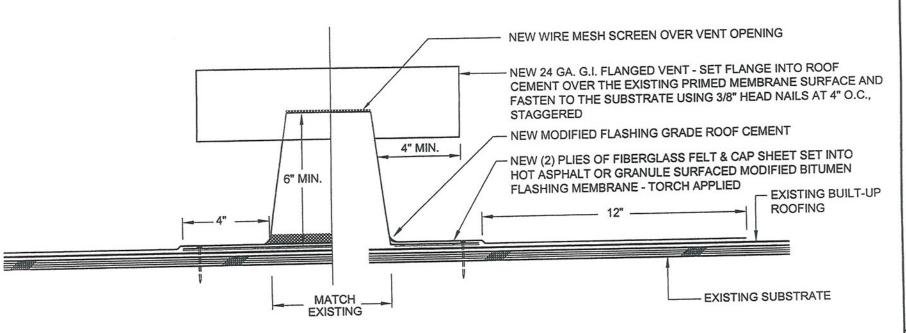
TYPICAL FLANGED UNIT

DETAILS

IRC PROJECT NO:	00000.00
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122FU01
SCALE:	N.T.S.



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NOTES:

- 1. CLEAN AND PRIME THE ENTIRE TIE-IN AREA.
- 2. ALL SEAMS ARE TO BE LEAD SOLDERED.
- 3. USE 3/8" HEAD NAILS, SPACED AT 4" O.C. AND STAGGERED FOR SECUREMENT OF METAL FLANGE TO PLYWOOD DECK.

11

NOTES:

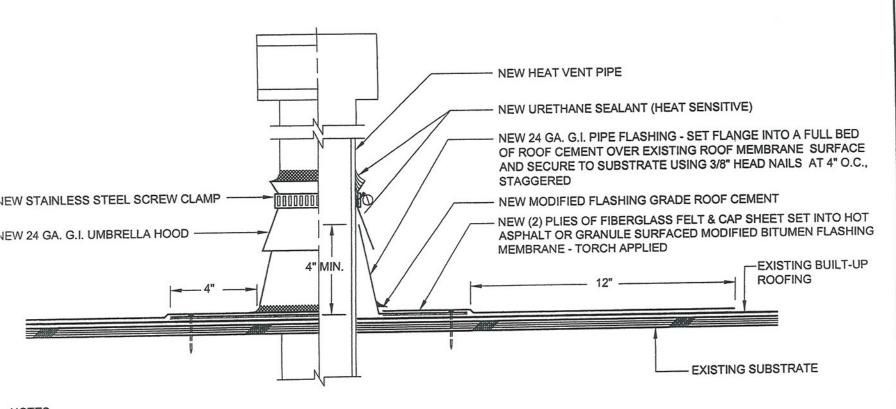
PROJECT NAME: THE IRVINE COMPANY

TENANT IMPROVEMENT DETAILS

DETAIL DESCRIPTION:

FLANGED VENT

IRC PROJECT NO:	00000.00
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122FV01
SCALE:	N.T.S.



- 1. CLEAN AND PRIME THE ENTIRE TIE-IN AREA.
- 2. ALL SEAMS ARE TO BE LEAD SOLDERED.
- 3. USE 3/8" HEAD NAILS, SPACED AT 4" O.C. AND STAGGERED FOR SECUREMENT OF METAL FLANGE TO PLYWOOD DECK.

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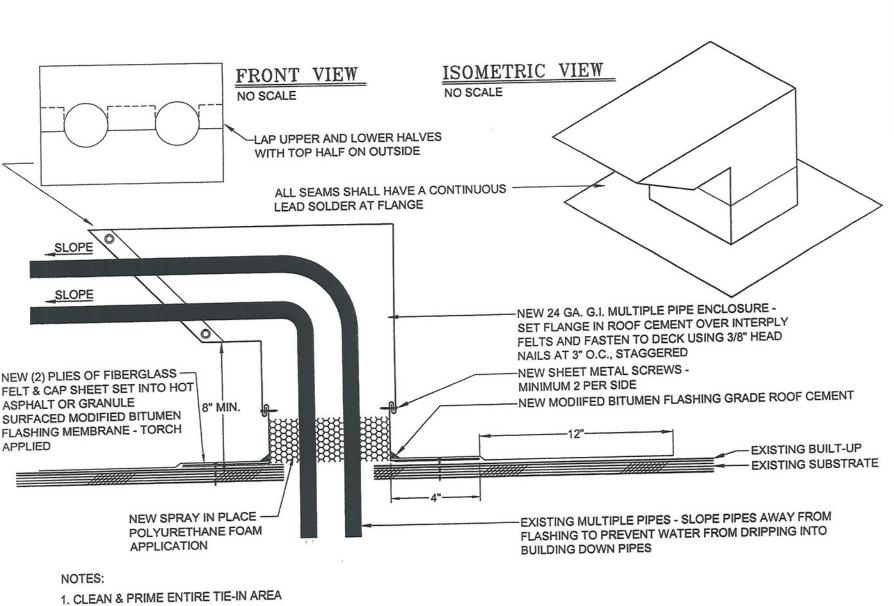
NOTES:

PROJECT NAME:
THE IRVINE COMPANY
TENANT IMPROVEMENT
DETAILS

DETAIL DESCRIPTION:

HEATER VENT FLASHING

IRC PROJECT NO:	00.0000
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122HV01
SCALE:	N.T.S.



2. COAT SURFACE OF ALL ROOF CEMENT WITH

ALUMINUM COATING.

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NOTES:

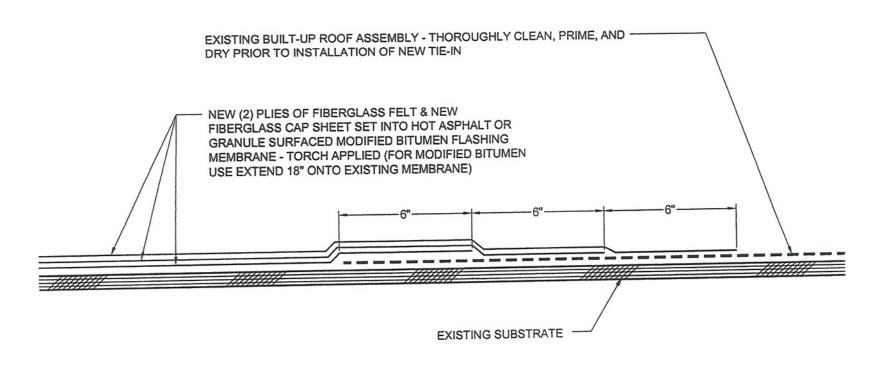
PROJECT NAME:

THE IRVINE COMPANY
TENANT IMPROVEMENT
DETAILS

DETAIL DESCRIPTION:

PENETRATION CLEARANCE

IRC PROJECT NO:	000000.00
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122MP01
SCALE:	N.T.S.



11

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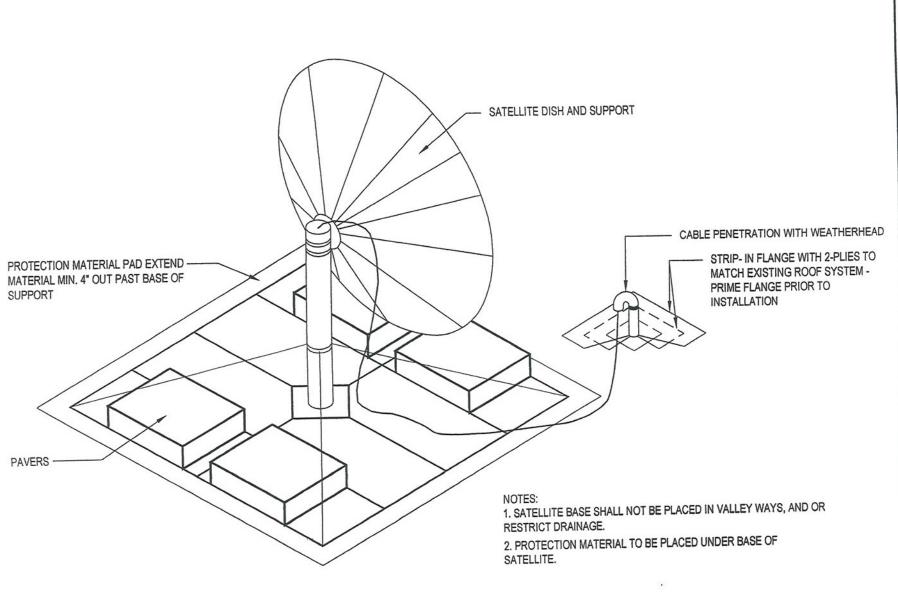
PROJECT NAME: THE IRVINE COMPANY

TENANT IMPROVEMENT DETAILS

DETAIL DESCRIPTION:

TIE-IN TO EXISTING ROOF

IRC PROJECT NO:	00.0000
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122TI01
SCALE:	N.T.S.



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NOTES:

PROJECT NAME:

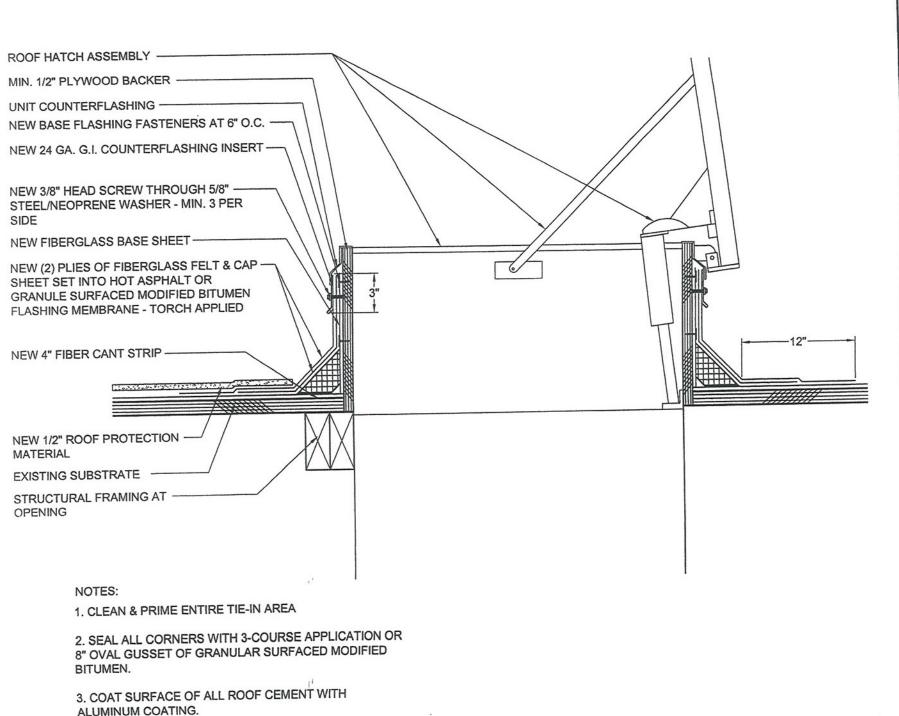
THE IRVINE COMPANY

TENANT IMPROVEMENT DETAILS

DETAIL DESCRIPTION:

SATELLITE DISH SUPPORT

IRC PROJECT NO:	00000.00
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122SD01
SCALE:	N.T.S.



1761 E. GARRY AVE SANTA ANA, CA 92705 (949) 476-8626 (949) 476-9810 FAX (800) 666-7663 WWW.IRCTECH.COM

NOTES:

PROJECT NAME:

THE IRVINE COMPANY

TENANT IMPROVEMENT DETAILS

DETAIL DESCRIPTION:

ROOF HATCH DETAIL

IRC PROJECT NO:	00000.00
DATE:	11/01/04
DRAWN BY:	JCA
CHECKED BY:	JS
CAD DRAWING NO:	3122RH01
SCALE:	N.T.S.

