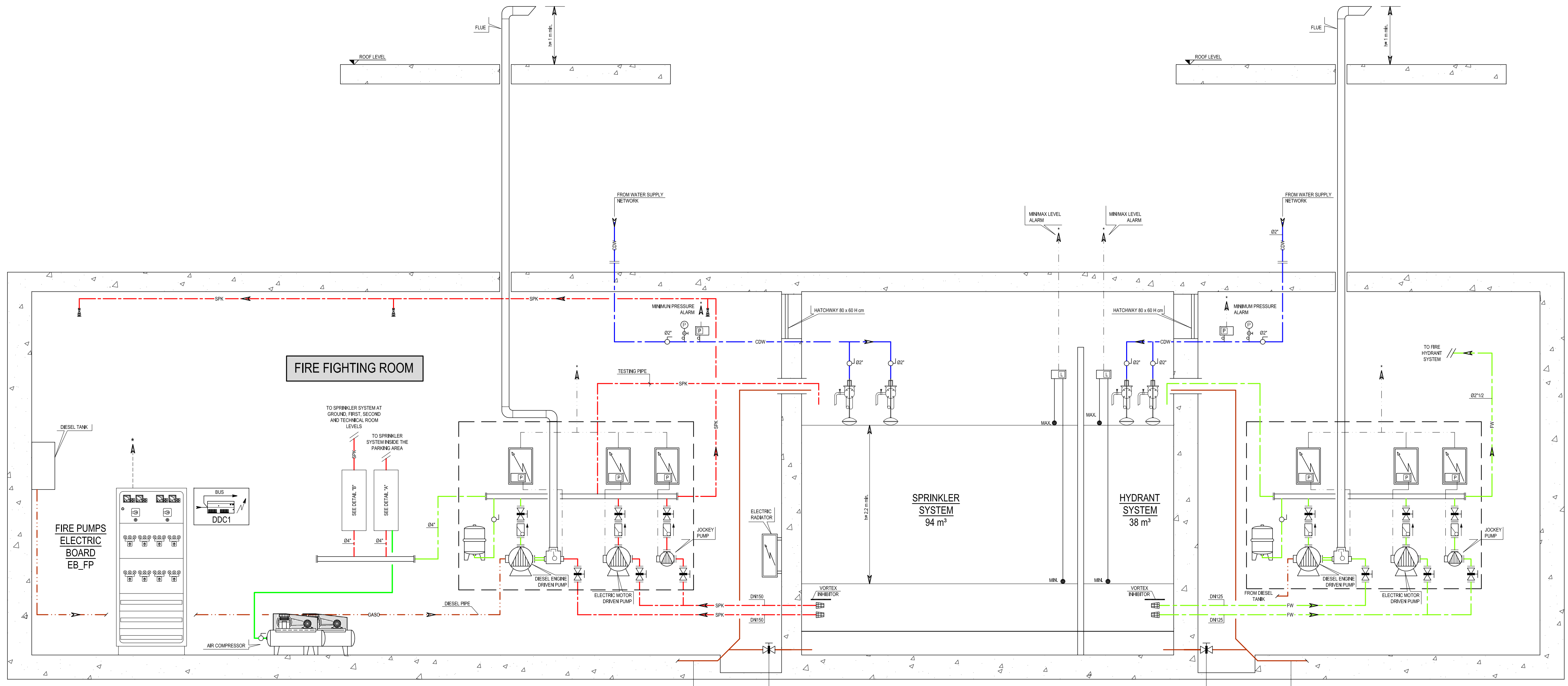


LEGEND

| | | | |
|--|---|--|--|
| | BALL VALVE | | SWING CHECK VALVE |
| | BUTTERFLY VALVE | | FUNNEL DRAIN |
| | GATE VALVE WITH RUBBER-ENCAPSULATED WEDGE | | ELECTRIC MOTOR DRIVEN PUMP |
| | PRESSURE REGULATOR | | FIRE PIPE |
| | LIFT CHECK VALVE | | SPRINKLER PIPE |
| | THERMOMETER | | COLD DOMESTIC WATER |
| | SENSOR | | DIESEL PIPE |
| | PRESSURE GAUGE | | ELECTRIC CONTROL SIGNAL |
| | PRESSURE CONTROL DEVICE | | (*) WIRE-LINE TO/FROM BUILDING MANAGEMENT SYSTEM |



SPRINKLER SYSTEM
FIRE FIGHTING PUMPING STATION
- volume flow = 90 m³/h
- pressure = 500 kPa

WATER STORAGE TANK
(120 m³ NET VOLUME)

HYDRANT SYSTEM
FIRE FIGHTING PUMPING STATION
- volume flow = 30 m³/h
- pressure = 500 kPa

| | | |
|---|---|---|
| <p>INVESTOR: JOINT PROJECT ON ENVIRONMENT AND ENERGY BETWEEN ITALY AND MONTENEGRO</p> <p>MINISTRY OF THE ENVIRONMENT, LAND AND SEA OF THE REPUBLIC OF ITALY</p> <p>MINISTARSTVO TURIZMA I ZAŠTITE ŽIVOTNE SREDINE</p> | <p>PROJECT MANAGEMENT AND STRUCTURAL DESIGN:</p> <p>FOM Favorolombani Ingegneria</p> | <p>MEP DESIGN:</p> <p>Maneris-Tifs</p> |
| <p>ARCHITECTURAL DESIGN:</p> <p>MC A</p> | <p>LOCAL SUPPORT:</p> <p>DFS DFS Engineering</p> | <p>PROJECT MANAGER:</p> <p>SIEMENS</p> |
| <p>PROJECT MANAGER:</p> <p>studio SYNTHESIS architecture & design</p> | <p>PROJECT MANAGER:</p> <p>HYDROFOKUS</p> | <p>PROJECT MANAGER:</p> <p>NOVA ENERGIJA</p> |

Objekat i mjesto:
Poslovni objekat - objekat Vlade Crne Gore
ENERGETSKI EFIKASNA ZGRADA
Urbanistička parcela 9
DUP "Univerzitetski centar" - izmjene i dopune
Podgorica, Crna Gora

ISSUE
MAIN PROJECT WATER DRAWINGS AND REPORT

TITLE
FIRE PROTECTION SCHEMATIC

| REV. | DATE | FILE | SUBJECT | DRAW | APPR. |
|------|------|------|---------|------|-------|
| a | | | | | |
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ISSUE NR. **Ce_101**

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|------------------|-------------|----------------------|
| DATE: 30/11/2010 | SCALE: - | FILE: 928_Ce_101.dwg |
| JN: 928 | DRAW: G. A. | APPROVED: R. M. |

| LEGEND | |
|--------|------------------|
| | SPRINKLER HEAD |
| | MECHANICAL SHAFT |
| | SPRINKLER PIPE |

| PIPE INSULATIONS | | | | | |
|------------------|----------------------------|---|-----------------------|----------------------|--|
| CIRCUIT | LOCATION | MATERIAL | INSULATION | INSULATION THICKNESS | EXTERNAL COVER WHEN EXPOSED |
| WET SPRINKLER | Placed area everywhere | Painted black steel with grooved end fittings | - | - | - |
| WET SPRINKLER | Non-placed area everywhere | Painted black steel with grooved end fittings | Flexible elastic foam | 30 | Aluminum sheet and wrap-on heating cable |
| DRY SPRINKLER | Everywhere | Galvanized steel with grooved end fittings | - | - | - |



INVESTOR: JOINT PROJECT ON ENVIRONMENT AND ENERGY BETWEEN ITALY AND MONTENEGRO
 MINISTRY OF THE ENVIRONMENT, LAND AND SEA OF THE REPUBLIC OF ITALY
 MINISTARSTVO TURIZMA I ZAŠTITE ŽIVOTNE SREDINE OF THE REPUBLIC OF MONTENEGRO

PROJECT MANAGEMENT AND STRUCTURAL DESIGN: **FCM**
 06035 Metković, Velebita 10b, www.fcmmetkovic.com

ARCHITECTURAL DESIGN: **MC A**
 Via De Canalini, 6/A - 47029 Bologna, Italia

PROJECT: **studio SYNTHESIS** architecture & design

PROJECT TEAM - KONSTRUKCIJA: **FRAME** Projekt d.o.o.

PROJECT TEAM - ELEKTROINSTALACIJE / JIKA OPGREBA: **SIENERSYS**

PROJECT TEAM - MEŠIŠKE INSTALACIJE: **NOVA ENERGIJA**

PROJECT TEAM - VODOVOD I KANALIZACIJA: **HIROFOKUS**

PROJECT TEAM - ELEKTROINSTALACIJE / JIKA OPGREBA: **SIENERSYS**

PROJECT TEAM - ZAŠTITA OD POŽARA: **PREVIZOR**

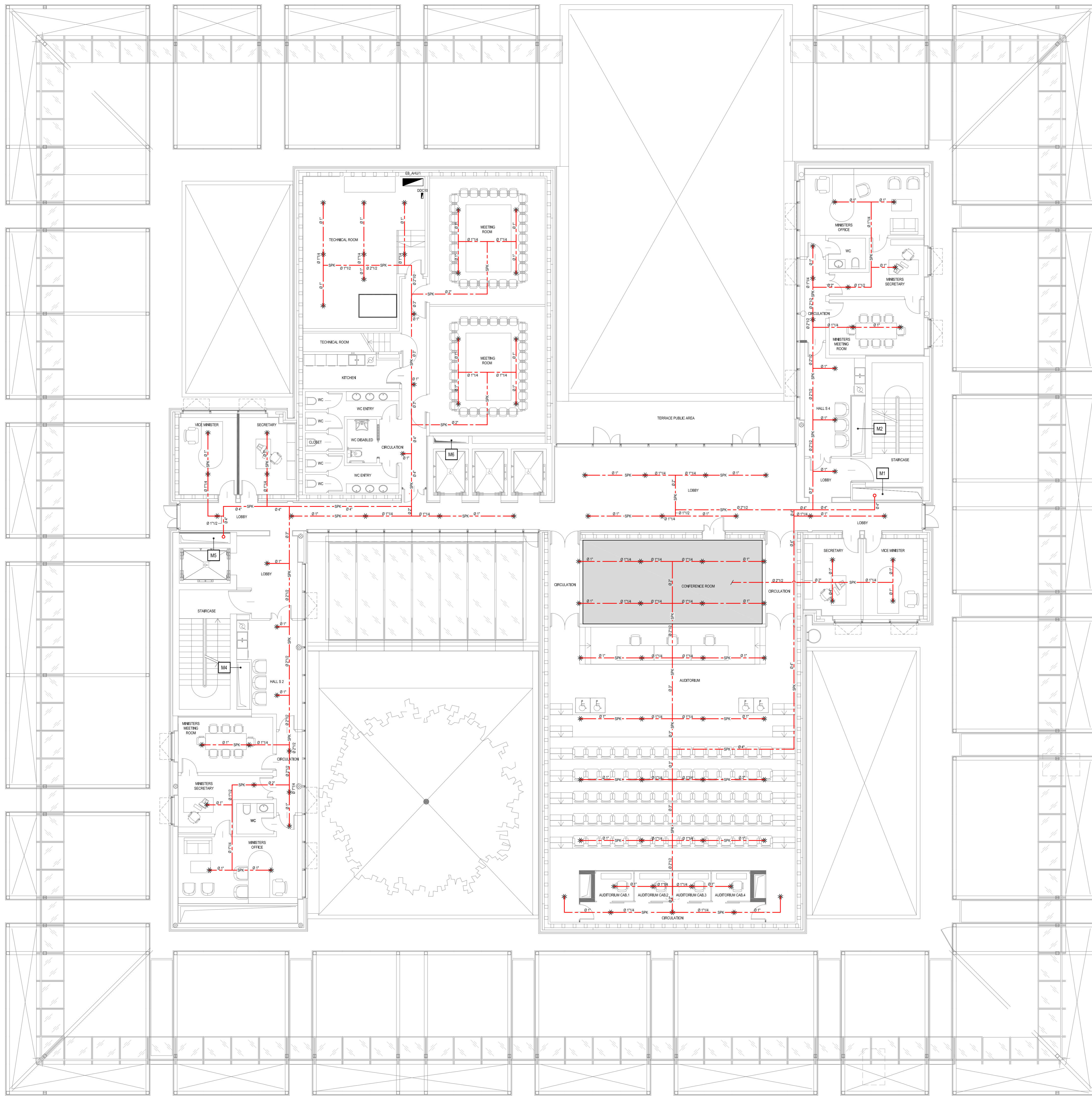
Poslovni objekat - objekat Vlade Crne Gore
 ENERGETSKI EFIKASNA ZGRADA
 Urbanistička parcela 9
 DUP "Univerzitetski centar" - izmjene i dopune
 Podgorica, Crna Gora

ISSUE: **MAIN PROJECT** WATER DRAWINGS AND REPORT
 TITLE: **FIRE PROTECTION LAYOUT LEVEL 0**

| REV. | DATE | FILE | SUBJECT | DRAW | APPR. |
|------|------|------|---------|------|-------|
| 0 | | | | | |
| 1 | | | | | |
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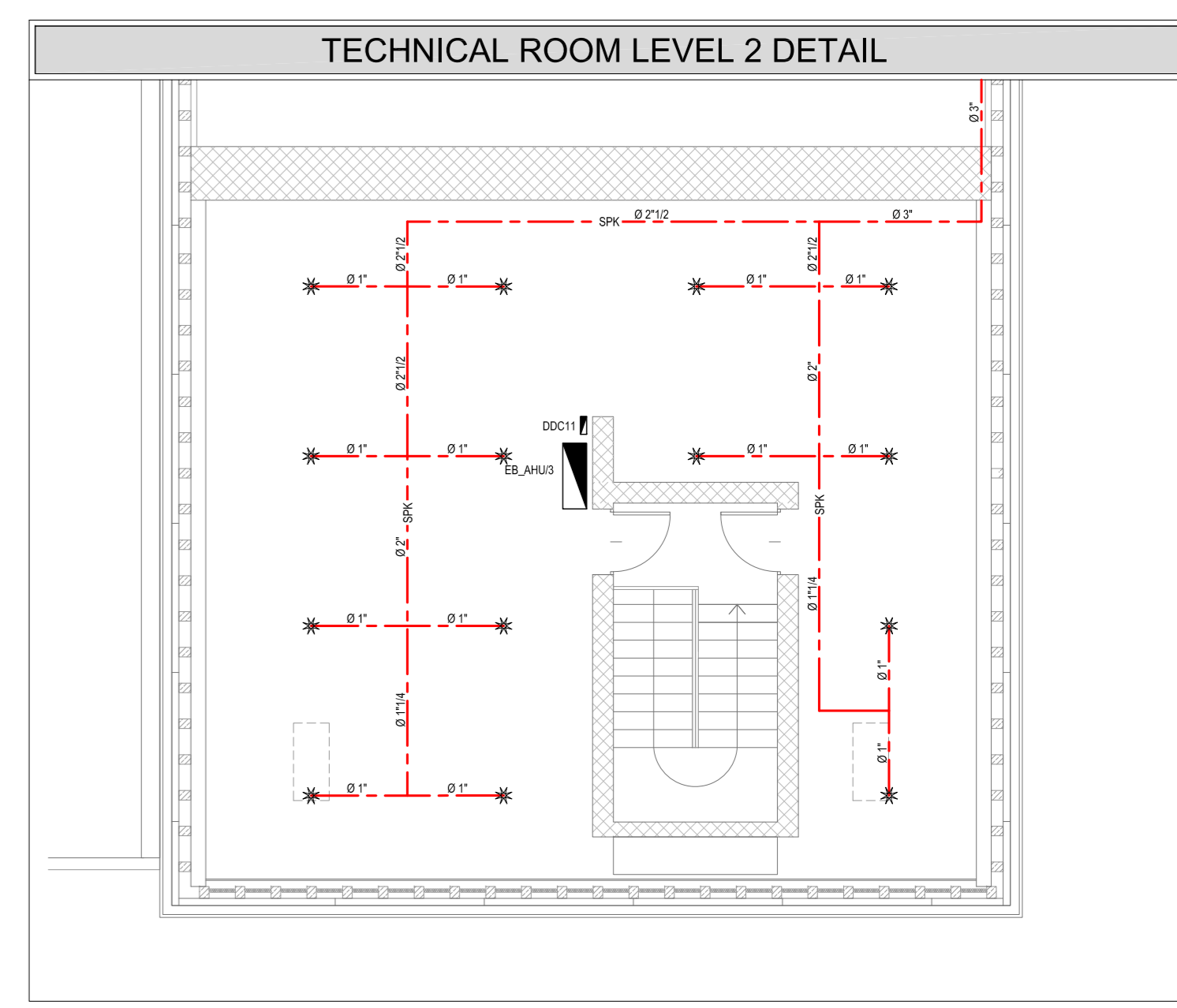
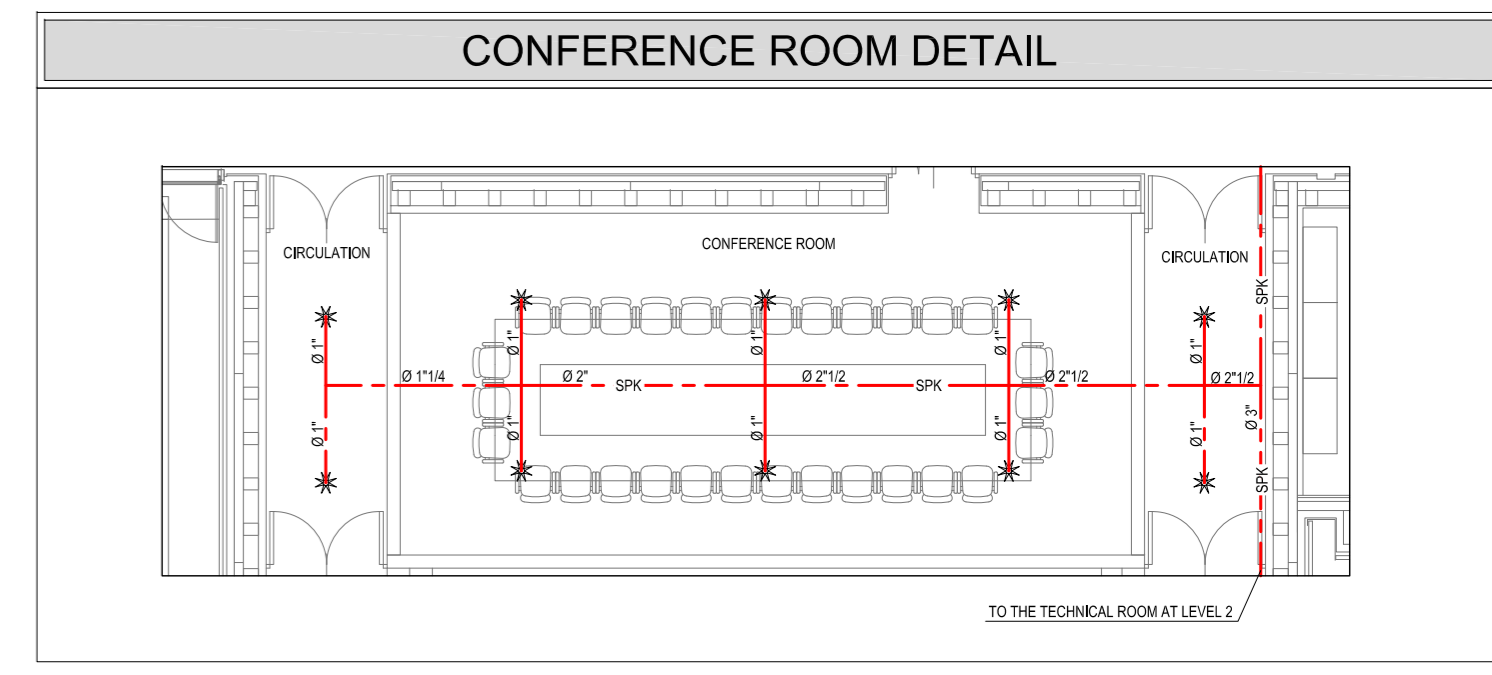
ISSUE NR: **Ce_103**

DATE: 30/11/2010 SCALE: 1:100 FILE: 926_Ce_103.dwg
 J.N. 926 DRAW: G.A. APPROVED: R.M.



| LEGEND | |
|---------------------|--------------------------|
| * SPRINKLER HEAD | ---SPK--- SPRINKLER PIPE |
| MK MECHANICAL SHAFT | |

| PIPE INSULATIONS | | | | | |
|------------------|----------------------------|---|---------------------------|----------------------|--|
| CIRCUIT | LOCATION | MATERIAL | INSULATION | INSULATION THICKNESS | EXTERNAL COVER WHEN EXPOSED |
| WET SPRINKLER | Heated area everywhere | Painted black steel with grooved end fittings | - | - | - |
| WET SPRINKLER | Non-heated area everywhere | Painted black steel with grooved end fittings | Flexible elastomeric foam | 30 | Aluminum sheet and wrap-on heating cable |
| DRY SPRINKLER | Everywhere | Galvanized steel with grooved end fittings | - | - | - |



INVESTITOR: JOINT PROJECT ON ENVIRONMENT AND ENERGY BETWEEN ITALY AND MONTENEGRO
 MINISTARSTVO OKOLIŠNE IZOLACIJE I ENERGIJE REPUBLIKE ITALIJE
 MINISTARSTVO TURIZMA I ZAŠTITE ŽIVOTNE SREDINE

Buđ. Džordža Vasiljevića bb, 81000 Podgorica, Crna Gora

Projekat: **studio SYNTHESIS** architecture & design

Projekat faza - KONSTRUKCIJA: **FRAME** Projekt d.o.o.

Projekat faza - VODOVOD I KANALIZACIJA: **HIDROFOKUS**

Projekat faza - ELEKTROINSTALACIJE / JAKA STRUJA: **SIENERSYS**

Projekat faza - ELEKTROINSTALACIJE / SLABA STRUJA: **SIENERSYS**

Projekat faza - HAŠIŠKE INSTALACIJE: **NOVA ENERGIJA**

Projekat faza - ZAŠTITA OD POČVARA: **PREVIZIJA**

Objekat i mjesto:
Poslovni objekat - objekat Vlade Crne Gore ENERGETSKI EFIKASNA ZGRADA
 Urbanistička parcela 9
 DUP "Univerzitetski centar" - izmjene i dopune
 Podgorica, Crna Gora

ISSUE
MAIN PROJECT WATER DRAWINGS AND REPORT

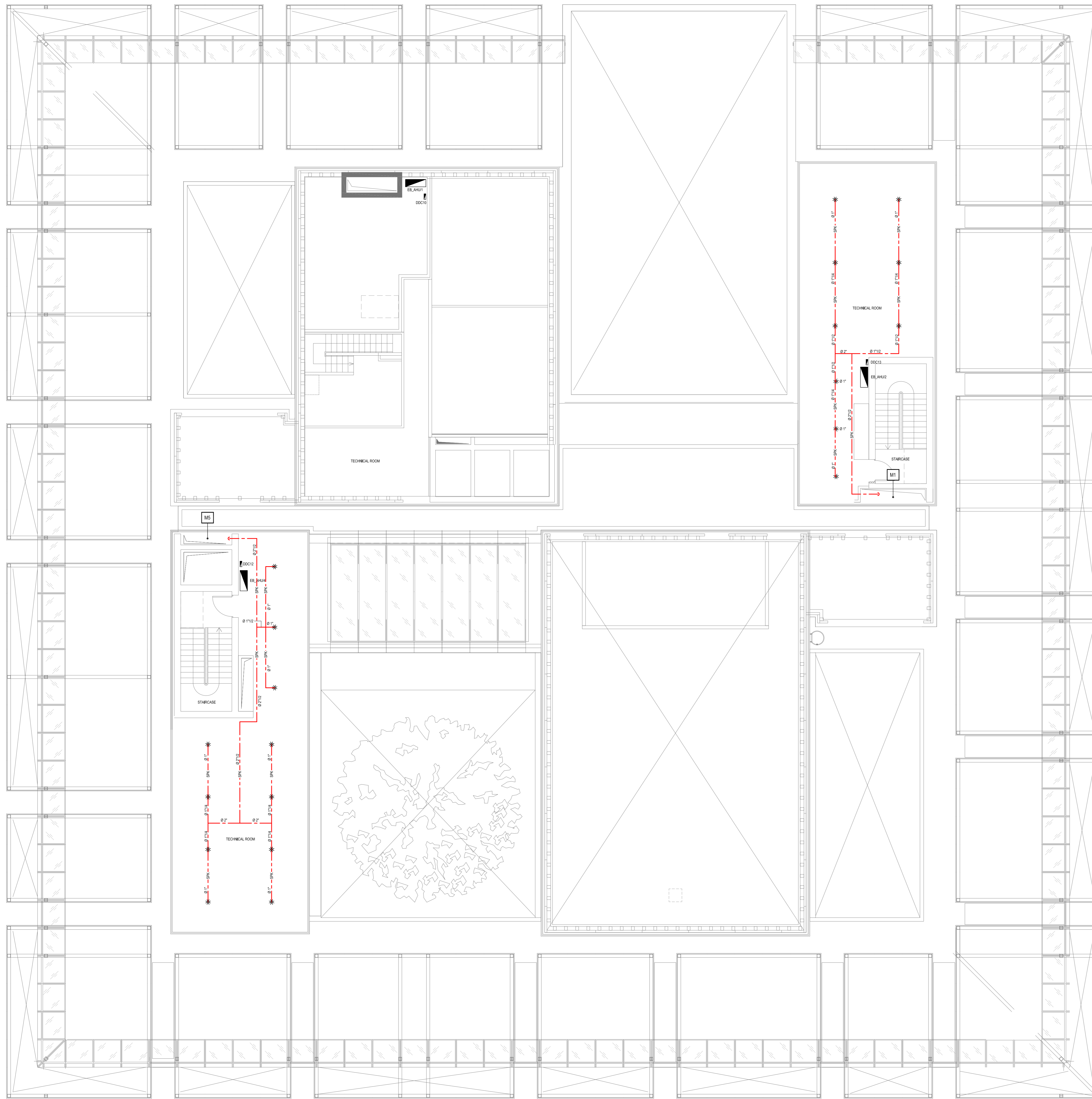
TITLE
FIRE PROTECTION LAYOUT LEVEL 2

| REV. | DATE | FILE | SUBJECT | DRAW | APPR. |
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ISSUE NR. **Ce_105**

| DATE: | SCALE: | FILE: |
|------------|--------|----------------|
| 30/11/2010 | 1:100 | 926_Ce_105.dwg |

| DRAW: | APPROVED: |
|-------|-----------|
| G.A. | R.M. |

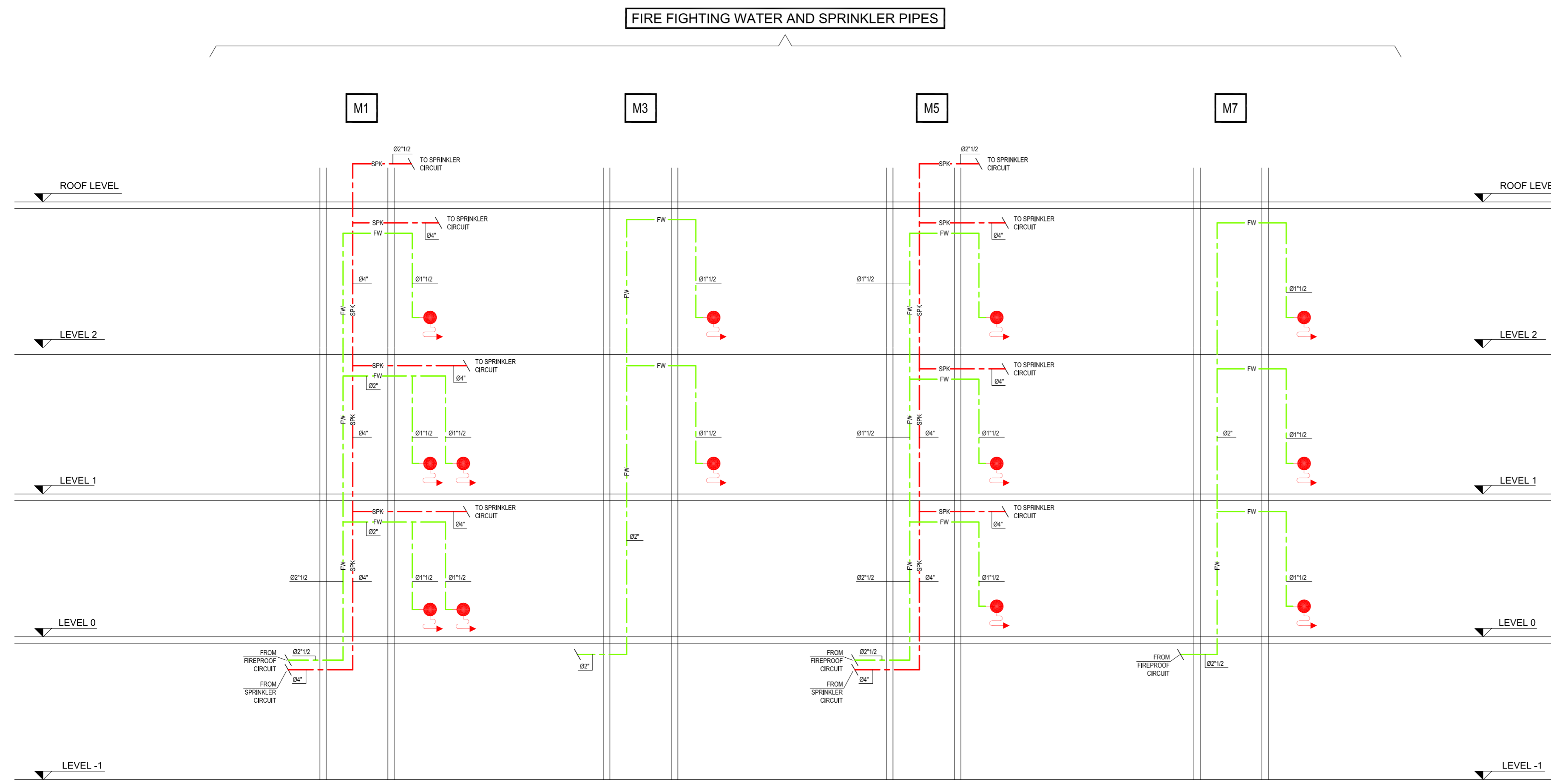


| LEGEND | | | | | | |
|--------|------------------|-----|--|--|--|----------------|
| * | SPRINKLER HEAD | --- | | | | SPRINKLER PIPE |
| Mk | MECHANICAL SHAFT | | | | | |

| PIPE INSULATIONS | | | | | |
|------------------|----------------------------|---|---------------------------|----------------------|---|
| CIRCUIT | LOCATION | MATERIAL | INSULATION | INSULATION THICKNESS | EXTERNAL COVER WHEN EXPOSED |
| WET SPRINKLER | Heated area everywhere | Painted black steel with grooved end fittings | - | - | - |
| WET SPRINKLER | Non-heated area everywhere | Painted black steel with grooved end fittings | Flexible elastomeric foam | 30 | Aluminium sheet and wrap-on heating cable |
| DRY SPRINKLER | Everywhere | Galvanized steel with grooved end fittings | - | - | - |

| | | | | | |
|---|------------|--|---------|---------------|----------------|
| INVESTITOR: JOINT PROJECT ON ENVIRONMENT AND ENERGY BETWEEN ITALY AND MONTENEGRO MINISTRY OF THE ENVIRONMENT, LAND AND SEA OF THE REPUBLIC OF ITALY Via De Carnuzzi, 6M - 40128 Bologna, Italia Tel. +39 051 03 13 381 - Fax +39 051 03 13 316 e-mail: mce@ambiente.it | | MINISTARSTVO TURIZMA I ZAŠTITE ŽIVOTNE SREDINE Rimski Trg 46, PC "Viktor" 81000 Podgorica, Crna Gora | | | |
| PROJECT MANAGEMENT AND STRUCTURAL DESIGN: F&M favoroemilian ingegneria 30035 Milano Venezia - Italia www.favoroemilian.com Tel. +39 041 6760211 Fax +39 041 6760203 fmg@favoroemilian.com | | MEP DESIGN: Manens-Tip Corso Sall 108/05 - 35127 Padova, Italia tel. +39 049 9705113 fax +39 049 9705231 www.manens-tip.it email: manens@manens-tip.it | | | |
| ARCHITECTURAL DESIGN: MC A Via De Carnuzzi, 6M - 40128 Bologna, Italia tel. +39 051 03 13 381 - fax +39 051 03 13 316 e-mail: mcad@mcad.it | | LOCAL SUPPORT: DFS DFS Engineering Monrovia - 81 000 Podgorica, Montenegro tel. +382 20 228 501 e-mail: info@dfs-engineering.com | | | |
| Projectant: Bulevar Vojvode Stevana 8 81000 Podgorica, Crna Gora studio SYNTHESIS architecture & design info@synthesis.me tel. +382 20 228 683 fax. +382 20 228 581 http://www.studio-synthesis.me | | | | | |
| Projektant faze - KONSTRUKCIJA: FRAME Projekt d.o.o. Zvezdarski put 24 11000 Beograd, Srbija Tel. +381 11 462 1111 Fax. +381 11 462 1111 E-mail: info@frame.rs | | Projektant faze - VODOVOD I KANALIZACIJA: HIROFOKUS Trg Nikole Novakovića br. 2 81000 Podgorica, Crna Gora tel. +382 20 21 46 70 e-mail: info@hirofokus.me | | | |
| Projektant faze - ELEKTROINSTALACIJE / Jaka struja: SIENERSYS Bulevar Vojvode Stevana 26 81000 Podgorica, Crna Gora Tel. +382 20 228 501 Fax. +382 20 228 581 E-mail: info@sienersys.me | | Projektant faze - ELEKTROINSTALACIJE / Slaba struja: SIENERSYS Bulevar Vojvode Stevana 26 81000 Podgorica, Crna Gora Tel. +382 20 228 501 Fax. +382 20 228 581 E-mail: info@sienersys.me | | | |
| Projektant faze - MAŠINSKE INSTALACIJE: NOVA ENERGIJA D.O.O. ZA PROJEKTOVANJE, INŽENJERING I PROJEKAT FIZIČKE IZVEDBE I USTANOVIŠTA ZA PROJEKTOVANJE I USTANOVIŠTA ZA IZVEDBU Bulevar Vojvode Stevana 26 81000 Podgorica, Crna Gora Tel. +382 20 228 501 Fax. +382 20 228 581 E-mail: novae@novae.me | | Projektant faze - ZAŠTITA OD POČUDA: PREVIZIJA ul. Matije Gupca 81000 Podgorica, Crna Gora Tel. +382 20 228 501 Fax. +382 20 228 581 E-mail: info@previzija.me | | | |
| Objekat i mjesto: Poslovni objekat - objekat Vlade Crne Gore ENERGETSKI EFIKASNA ZGRADA Urbanistička parcela 9 DUP "Univerzitetski centar" - izmjene i dopune Podgorica, Crna Gora | | | | | |
| ISSUE MAIN PROJECT WATER DRAWINGS AND REPORT | | | | | |
| TITLE FIRE PROTECTION LAYOUT ROOF LEVEL | | | | | |
| REV. | DATE | FILE | SUBJECT | DRAW | APPR. |
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| ISSUE NR. | | | | Ce_106 | |
| DATE: | 30/11/2010 | SCALE: | 1:100 | FILE: | 926_Ce_106.dwg |
| DRAWN: | 926 | APPROVED: | G. A. | APPROVED: | R. M. |

| LEGEND | |
|--------|----------------------|
| | FIRE HOSE |
| | MECHANICAL SHAFT |
| | SPK - SPRINKLER PIPE |
| | FW - PIPE FIRE |



| | | | | | |
|--|---|--------|---------|-----------|----------------|
| <p>INVESTITOR: JOINT PROJECT ON ENVIRONMENT AND ENERGY BETWEEN ITALY AND MONTENEGRO</p> <p>MINISTRY OF THE ENVIRONMENT, LAND AND SEA OF THE REPUBLIC OF ITALY Via D'Azeglio 10, 00187 Roma, Italy Tel. +39 06 47828111 Fax +39 06 47828112 www.mise.it</p> <p>MINISTARSTVO TURIZMA I ZAŠTITE ŽIVOTNE SREDINE Rimski Trg 46, PC "Vektra" 81000 Podgorica, Crna Gora Tel. +381 020 21 98 70 Fax +381 020 21 98 70 e-mail: info@mt.gov.me</p> | | | | | |
| <p>PROJECT MANAGEMENT AND STRUCTURAL DESIGN:</p> <p>FOM foveredimian ingegneria 30035 Mirano Venezia - Italia Tel. +39 041 5785711 Fax +39 041 4355533 www.foveredimian.com it@foveredimian.com</p> | <p>MEP DESIGN:</p> <p>Mariens-Tifs Corso Stati Uniti 56 - 35127 Padova, Italia tel +39 049 8705110 fax +39 049 6962011 www.mariens-tifs.it e-mail: info@mariens-tifs.it</p> | | | | |
| <p>ARCHITECTURAL DESIGN:</p> <p>MC A via De Caracciolo 6/M - 40129 Bologna, Italia tel. +39 051 63 13 381 - fax +39 051 63 13 316 e-mail: mc@mcarchitects.it</p> | <p>LOCAL SUPPORT:</p> <p>DFS DFS Engineering Moskovska 4 - 81 000 Podgorica, Montenegro tel +382 20 228 501 e-mail: info@dfs-engineering.com</p> | | | | |
| <p>Projektant:</p> <p>studio SYNTHESIS architecture & design Buš. Džordža Vašingtona bb 81000 Podgorica, Crna Gora info@studiosynthesis.me tel. +382 20 228 083 fax. +382 20 228 082 http://www.studiosynthesis.me</p> | | | | | |
| <p>Projektant faze - KONSTRUKCIJA:</p> <p>FRAME Project d.o.o. Prilaznik na projektovnoj lokaciji Buš. Džordža Vašingtona bb Podgorica</p> | <p>Projektant faze - VODOVOD I KANALIZACIJA:</p> <p>HIDROFOKUS Trg Nikole Kovačevića br. 2 81000 Podgorica, Crna Gora tel. +382 020 21 98 70 e-mail: hidro@hidro.me</p> | | | | |
| <p>Projektant faze - ELEKTROINSTALACIJE / JAKA STRUJA:</p> <p>SIENERSYS II Opatovskog bolnišnica 2e 81000 Podgorica Tel./fax: +382 20 223 223 Mobil: +382 02 223 223 E-mail: sienersys@sienersys.me</p> | <p>Projektant faze - ELEKTROINSTALACIJE / SLABA STRUJA:</p> <p>simes Projektni biro Buš. Džordža Vašingtona 1 81 000 Podgorica, Crna Gora tel. +382 020 228 880 fax. +382 020 228 880 e-mail: simes@siemens.me</p> | | | | |
| <p>Projektant faze - MAŠINSKE INSTALACIJE:</p> <p>NOVA ENERGIJA D.O.O. ZA PROJEKTOVANJE, INŽENJERING I PROMET ENERGIJE BANA VUKOVIĆEVA 20, 81000 PODGORICA, CRNA GORA tel. +382 20 228 102 e-mail: novainst@novainst.me</p> | <p>Projektant faze - ZAŠTITA OD POŽARA:</p> <p>PREVIZIJA Projektovanje ul. J. J. Žižina 1 ul. 6/1013-300 mob. 990505486 fax. 626602391</p> | | | | |
| <p>Objekat i mjesto:</p> <p>Poslovni objekat - objekat Vlade Crne Gore ENERGETSKI EFIKASNA ZGRADA Urbanistička parcela 9 DUP "Univerzitetski centar" - izmjene i dopune Podgorica, Crna Gora</p> | | | | | |
| <p>ISSUE</p> <p>MAIN PROJECT WATER DRAWINGS AND REPORT</p> | | | | | |
| <p>TITLE</p> <p>FIRE PROTECTION ALTIMETRIC</p> | | | | | |
| REV. | DATE | FILE | SUBJECT | DRAW | APPR. |
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| ISSUE NR. | | | | | Ce_107 |
| DATE: | 30/11/2010 | SCALE: | - | FILE: | 926_Ce_107.dwg |
| J.N. | 926 | DRAW: | G. A. | APPROVED: | R. M. |