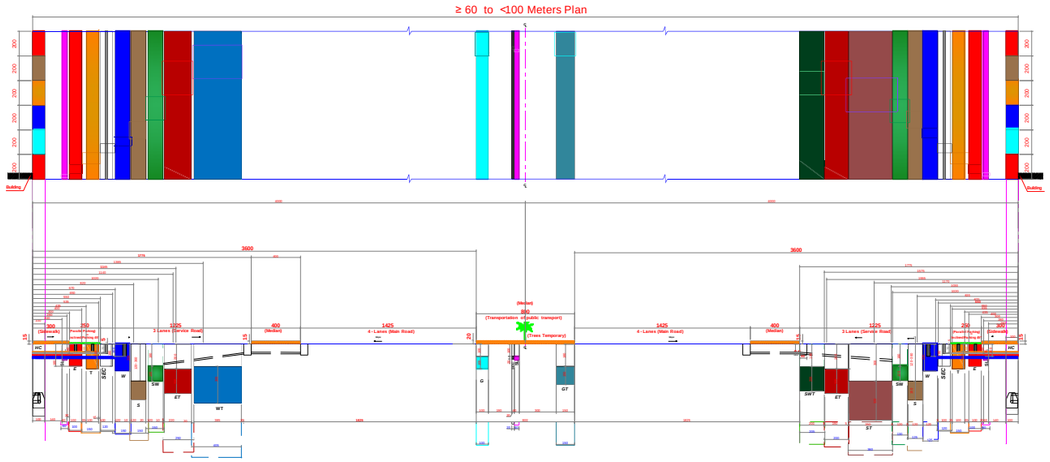
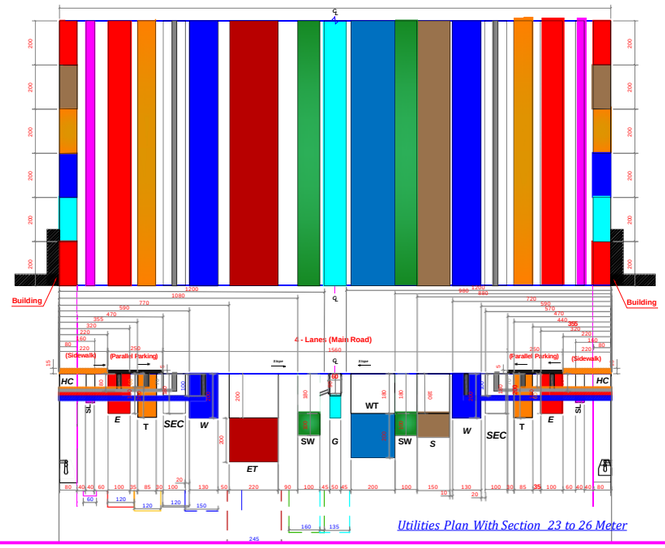
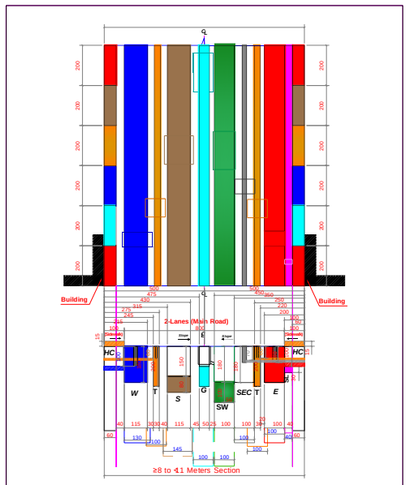


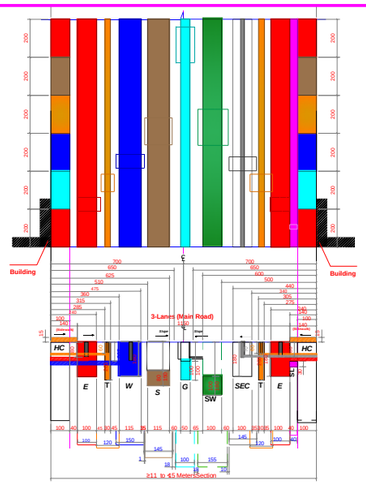
Utilities Plan With Section 60 to 100 Meter



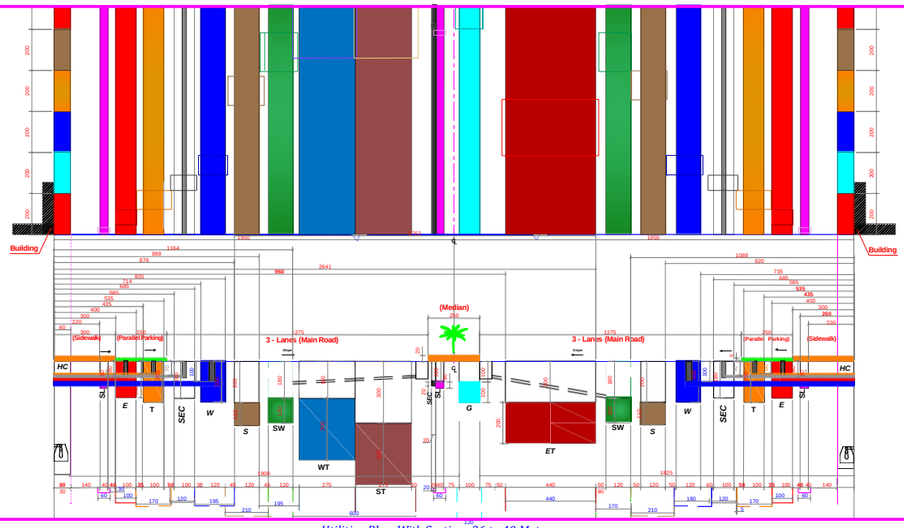
Utilities Plan With Section 23 to 26 Meter



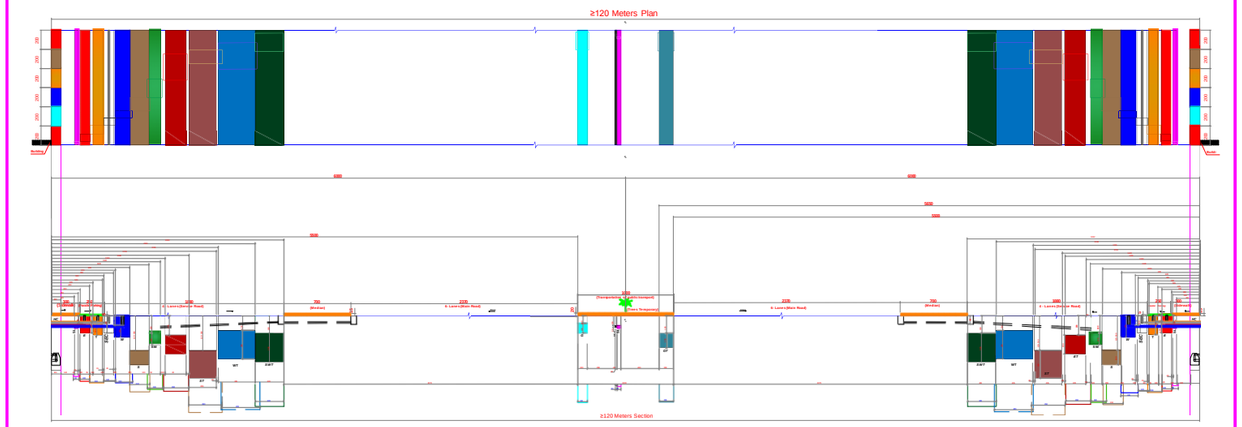
Utilities Plan With Section 8 to 10 Meter



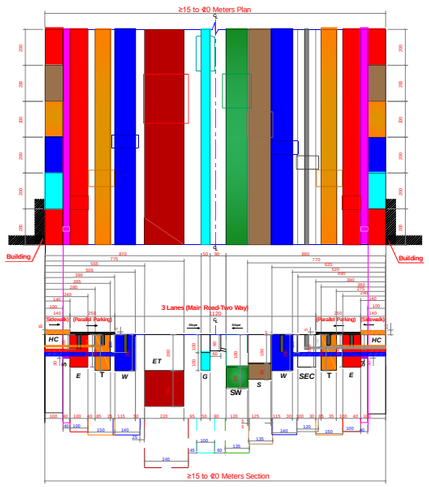
Utilities Plan With Section 11 to 15 Meter



Utilities Plan With Section 26 to 40 Meter



Utilities Plan With Section 120 Meter



Utilities Plan With Section 15 to 20 Meter

LEGEND

Home Connections	HC	
Street Lighting & Traffic Lights	SL	
Sanitary	S	
Storm Water	SW	
Electricity (LV or MV)	E	
Telephone Main and Secondary With Mini And Micro Trench	T	
Water	W	
GAS	G	
Security Cable	SEC	
Electricity Transfer (HV or EHV)	ET	
Security Camera Cable	SEC	
Available Utility Corridor	AUC	
Water Transfer	WT	
GAS Transfer	GT	
Storm Water Transfer	SWT	
Sanitary Transfer	ST	

NOTES:

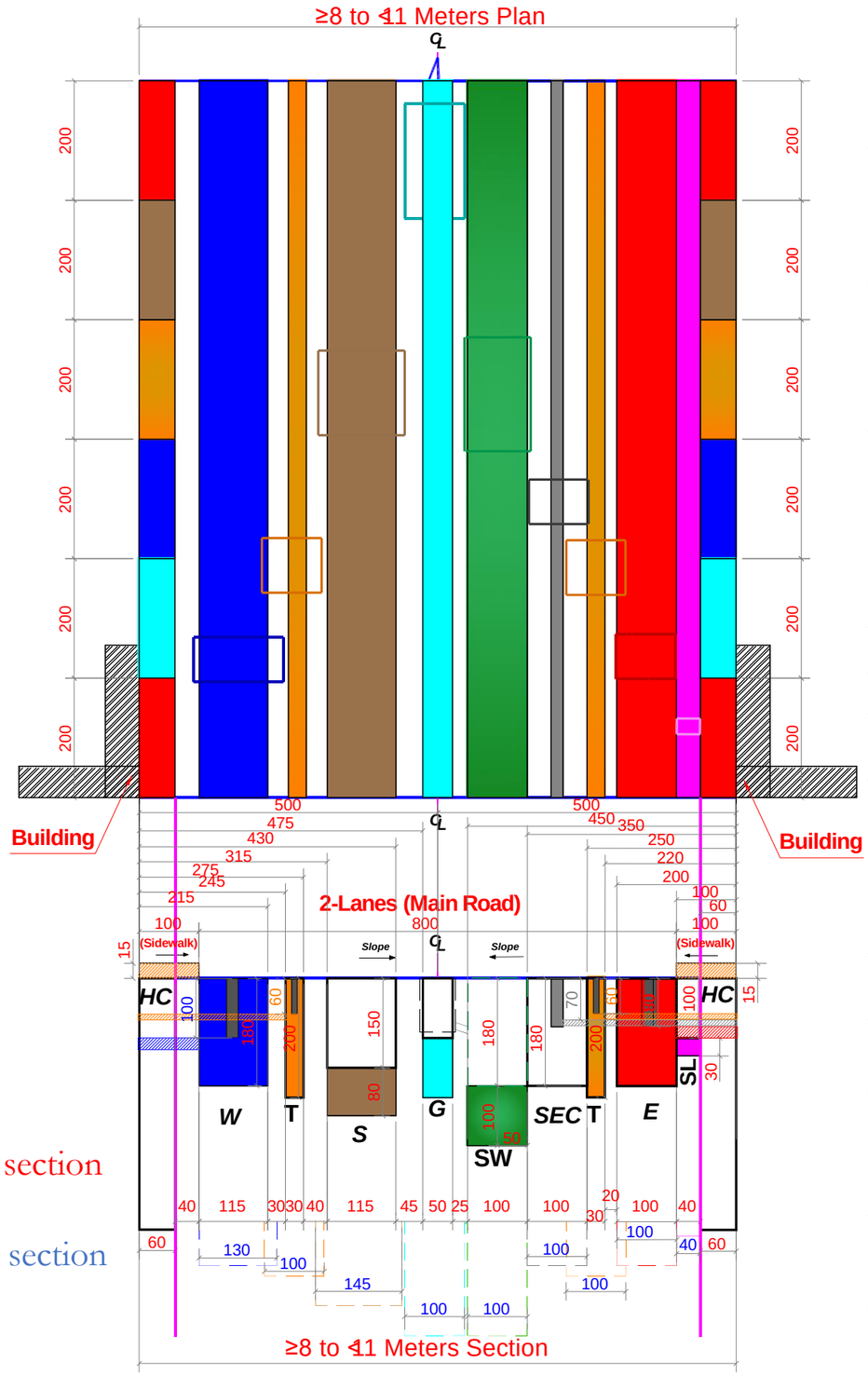
1. ALL DIMENSIONS ARE IN CENTIMETERS .

Sequence of Priority Utility:

Upon implementation, levels of each utility route shall be taken into consideration so as not cause conflict between utilities in cross direction.

VERTICAL CONVENTIONAL SEQUENCE FOR UTILITIES	
T	Telephone Main and Secondary With Mini And Micro Trench
SEC	Security Cable
SEC	Security Camera Cable
SL	Street Lighting & Traffic Lights
EDL	Electricity (LV or MD)
W	Water
G	GAS
SW	Storm Water
ET	Electricity Transfer (HV or EHV)
S	Sanitary

SEQUENCE OF PRIORITY URILITY



Utilities Plan With Section ≥8 to <11 Meter

Definitions and Terms:

1. Definition:

Updated street section proposed to the General Department of Project Coordination with the aim of regulating works of utilities laying as the updated street drawings show:

a. The form of distribution of cross sections of standard public utilities (listed in drawing's key) below the street cross section.
b. Engineering features of sections (dimensions and distances from the adjoining sections and real estate's walls).
c. Projection of utilities routes on the street horizontal projection.

The section is built based on international experiences in this field. In addition, the updated section requires, before working thereon, approval of the Ministry of Municipal and Ruler Affairs (MoMRA) after MoMRA submits it to the related entities and obtains their approvals.

2. Range:

a. Geographic Range: All the Kingdom's regions.
b. The Manual applies to utilities laying in new streets and renewals of utilities in existing streets.
c. Road reserve locates between the two regression lines determined on the drawings as all sections of utilities must locate within the road reserve while the home connections must locate outside the road reserve within the regression region.

3. Degree of Mandatory:

The implementing manual of updated street section is considered a reference binding upon all concerned authorities within the course of public utilities abovementioned. In addition, all utility contractor shall strictly and accurately abide by all dimensions and distances determined regarding sections of utility implemented under the supervision of the concerned service entities. Any difference between the implemented routes and drawings will not be accepted and approved by utilities department represented by coordination and follow-up offices in the municipalities.

4. Beyond the range:

The general specifications of civil works in public utilities laying projects (second edition) issued by MoMRA shall be observed upon implementation of all civil works in public utilities projects.

5. Virtual Directions:

The right direction indicated in cross sections is north or east, accordingly, the utilities are distributed based on street direction.

6. Detailed Implementing Instructions:

They are necessary instructions for indication of utilities special conditions, and they are listed in a special manual "Implementing Regulations".

7. Service Sectors Distribution Management Matrix:

It is a matrix that aims to regulate allocation of additional routes for standard utilities and potential utilities in addition to management of the processes of planning routes of standard transfer services (water transfer, electricity transfer, sanitary transfer, storm water transfer).

8. Standard Vertical Dimensions:

The vertical dimensions set out in the drawings represent the minimum limits, and the final levels depend on levels of project line for every utility.

9. Mini Excavation and Micro Excavation:

The sign (|) refers to the location of mini excavation and micro excavation as set out in the general specification of civil works in public utilities laying projects (second edition) issued by MoMRA upon implementation of all civil works in public utilities projects.

10. Electricity Stations:

Regarding outlets of land cables with different voltages (380, 132, 33, 8, 13), they require a special consideration for every station and approval thereof by the concerned entities in the city.

11. Ordinary Excavation and Mini Excavation:

The method of open ordinary excavation is adopted for routes with width of 1m and more, while mini excavation is implemented in the routes that their width suits the specifications set out in the technical specifications of second edition of Manual of Civil Works Implementation in Public Utilities Laying Projects issued by MoMRA.

12. Manholes:

In case of dimensions of manholes that their width is more than 150 cm, coordination must be make in order to align any future requirements of the adjoining service entities.

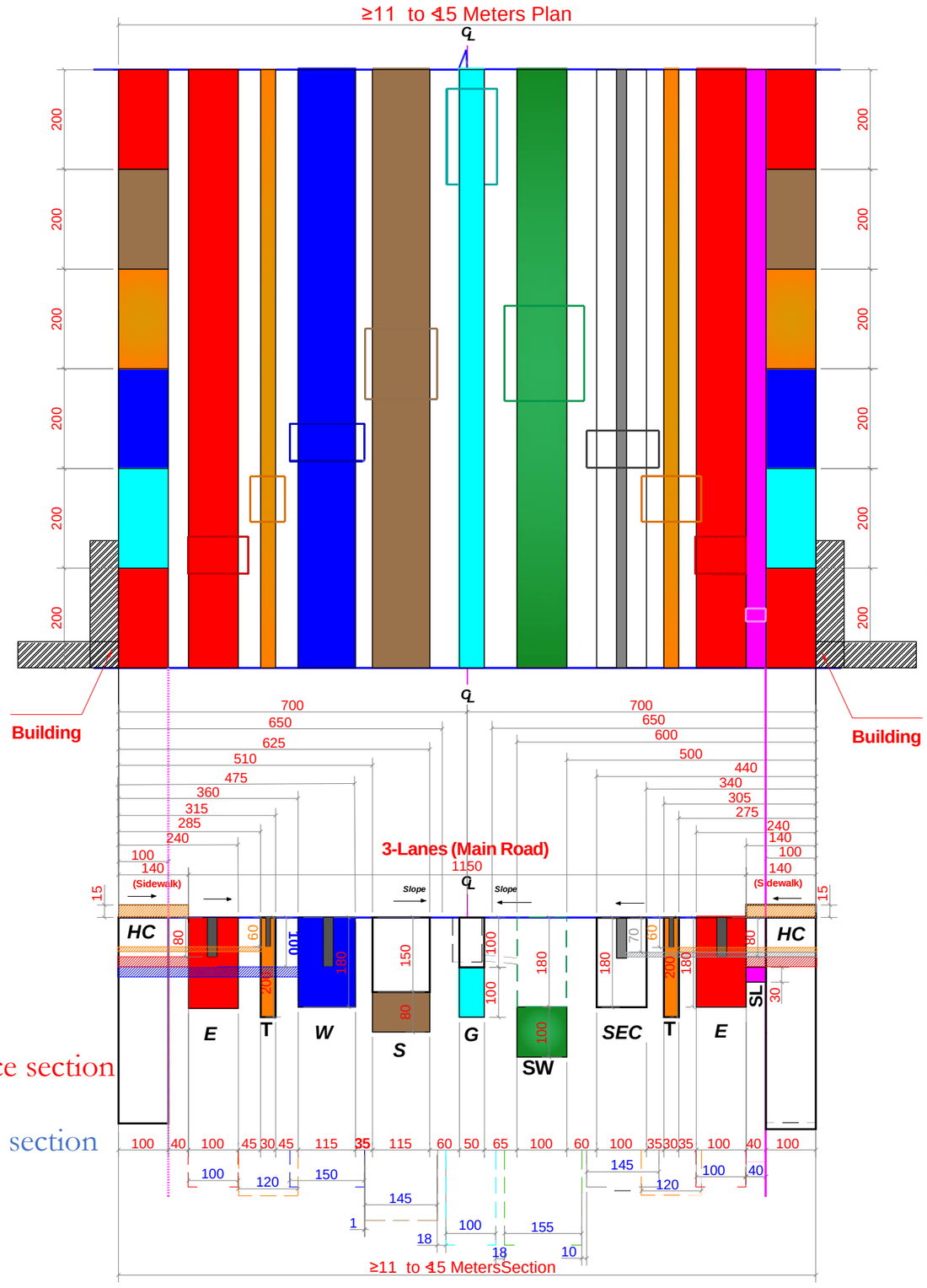
LEGEND		
Home Connections	HC	
Street Lighting & Traffic Lights	SL	
Sanitary	S	
Storm Water	SW	
Electricity (LV or MV)	E	
Telephone Main and Secondary With Mini And Micro Trench	T	
Water	W	
GAS	G	
Security Cable	SEC	
Electricity Transfer (HV or EHV)	ET	
Security Camera Cable	SEC	
Available Utility Corridor	AUC	
Water Transfer	WT	
GAS Transfer	GT	
Storm Water Transfer	SWT	
Sanitary Transfer	ST	

Sequence of Priority Utility:

Upon implementation, levels of each utility route shall be taken into consideration so as not cause conflict between utilities in cross direction.

VERTICAL CONVENTIONAL SEQUENCE FOR UTILITIES	
T	Telephone Main and Secondary With Mini And Micro Trench
SEC	Security Cable
SEC	Security Camera Cable
SL	Street Lighting & Traffic Lights
EDL	Electricity (LV or MD)
W	Water
G	GAS
SW	Storm Water
ET	Electricity Transfer (HV or EHV)
S	Sanitary

SEQUENCE OF PRIORITY URILITY



Utilities Plan With Section ≥11 to <15 Meter

Definitions and Terms:

1. Definition:

Updated street section proposed to the General Department of Project Coordination with the aim of regulating works of utilities laying as the updated street drawings show:

a. The form of distribution of cross sections of standard public utilities (listed in drawing's key) below the street cross section.
b. Engineering features of sections (dimensions and distances from the adjoining sections and real estate's walls).
c. Projection of utilities routes on the street horizontal projection.

The section is built based on international experiences in this field. In addition, the updated section requires, before working thereon, approval of the Ministry of Municipal and Ruler Affairs (MoMRA) after MoMRA submits it to the related entities and obtains their approvals.

2. Range:

a. Geographic Range: All the Kingdom's regions.
b. The Manual applies to utilities laying in new streets and renewals of utilities in existing streets.
c. Road reserve locates between the two regression lines determined on the drawings as all sections of utilities must locate within the road reserve while the home connections must locate outside the road reserve within the regression region.

3. Degree of Mandatory:

The implementing manual of updated street section is considered a reference binding upon all concerned authorities within the course of public utilities abovementioned. In addition, all utility contractor shall strictly and accurately abide by all dimensions and distances determined regarding sections of utility implemented under the supervision of the concerned service entities. Any difference between the implemented routes and drawings will not be accepted and approved by utilities department represented by coordination and follow-up offices in the municipalities.

4. Beyond the range:

The general specifications of civil works in public utilities laying projects (second edition) issued by MoMRA shall be observed upon implementation of all civil works in public utilities projects.

5. Virtual Directions:

The right direction indicated in cross sections is north or east, accordingly, the utilities are distributed based on street direction.

6. Detailed Implementing Instructions:

They are necessary instructions for indication of utilities special conditions, and they are listed in a special manual "Implementing Regulations".

7. Service Sectors Distribution Management Matrix:

It is a matrix that aims to regulate allocation of additional routes for standard utilities and potential utilities in addition to management of the processes of planning routes of standard transfer services (water transfer, electricity transfer, sanitary transfer, storm water transfer).

8. Standard Vertical Dimensions:

The vertical dimensions set out in the drawings represent the minimum limits, and the final levels depend on levels of project line for every utility.

9. Mini Excavation and Micro Excavation:

The sign (|) refers to the location of mini excavation and micro excavation as set out in the general specification of civil works in public utilities laying projects (second edition) issued by MoMRA upon implementation of all civil works in public utilities projects.

10. Electricity Stations:

Regarding outlets of land cables with different voltages (380, 132, 33, 8, 13), they require a special consideration for every station and approval thereof by the concerned entities in the city.

11. Ordinary Excavation and Mini Excavation:

The method of open ordinary excavation is adopted for routes with width of 1m and more, while mini excavation is implemented in the routes that their width suits the specifications set out in the technical specifications of second edition of Manual of Civil Works Implementation in Public Utilities Laying Projects issued by MoMRA.

12. Manholes:

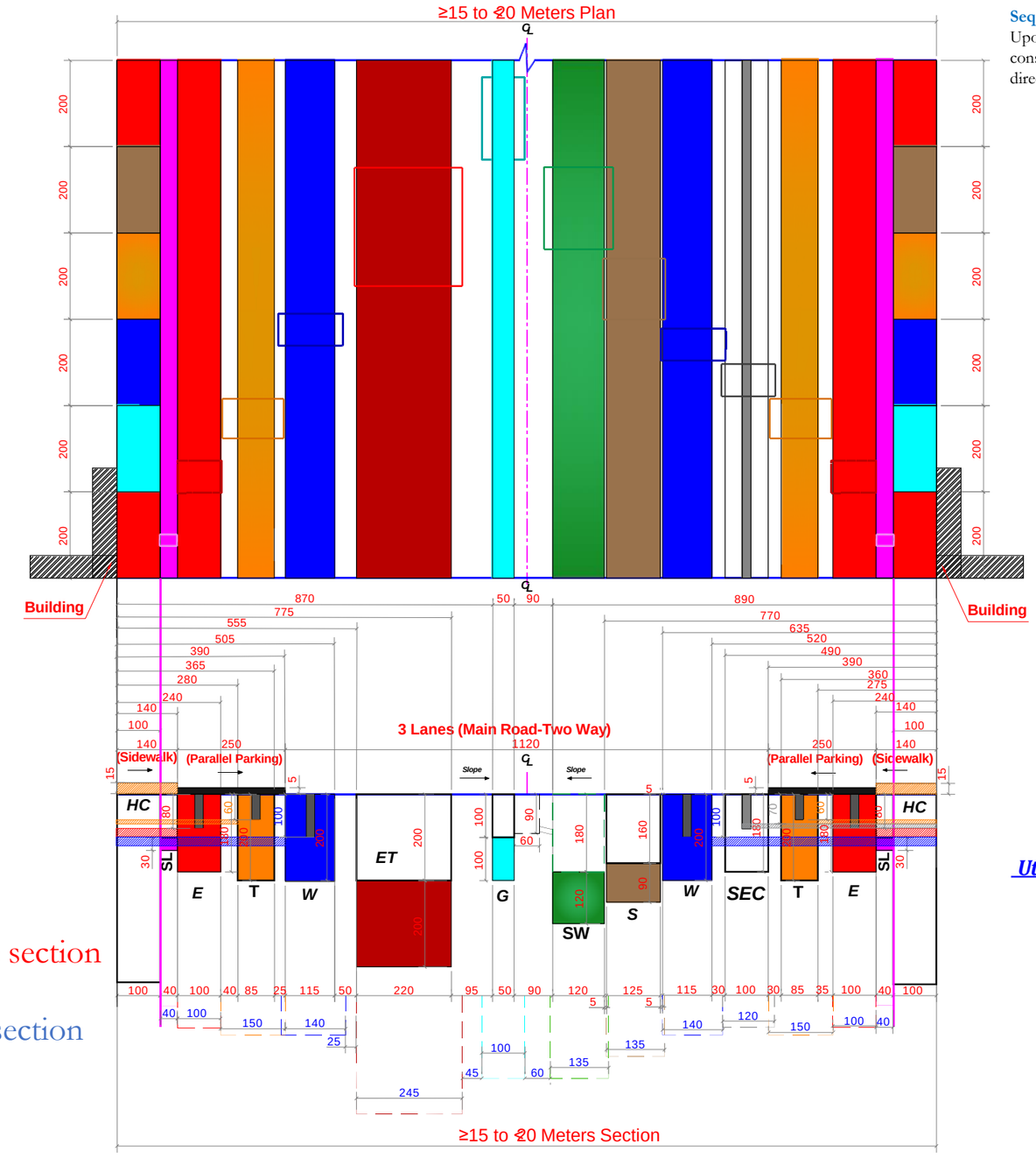
In case of dimensions of manholes that their width is more than 150 cm, coordination must be make in order to align any future requirements of the adjoining service entities.

LEGEND

Home Connections	HC	
Street Lighting & Traffic Lights	SL	
Sanitary	S	
Storm Water	SW	
Electricity (LV or MV)	E	
Telephone Main and Secondary With Mini And Micro Trench	T	
Water	W	
GAS	G	
Security Cable	SEC	
Electricity Transfer (HV or EHV)	ET	
Security Camera Cable	SEC	
Available Utility Corridor	AUC	
Water Transfer	WT	
GAS Transfer	GT	
Storm Water Transfer	SWT	
Sanitary Transfer	ST	

NOTES:

1. ALL DIMENSIONS ARE IN CENTIMETERS .



Service section

Manhole section

Sequence of Priority Utility: :

Upon implementation, levels of each utility route shall be taken into consideration so as not cause conflict between utilities in cross direction.

VERTICAL CONVENTIONAL SEQUENCE FOR UTILITIES	
T	Telephone Main and Secondary With Mini And Micro Trench
SEC	Security Cable
SEC	Security Camera Cable
SL	Street Lighting & Traffic Lights
EDL	Electricity (LV or MD)
W	Water
G	GAS
SW	Storm Water
ET	Electricity Transfer (HV or EHV)
S	Sanitary

SEQUENCE OF PRIORITY URILITY

LEGEND

Home Connections	HC	
Street Lighting & Traffic Lights	SL	
Sanitary	S	
Storm Water	SW	
Electricity (LV or MV)	E	
Telephone Main and Secondary With Mini And Micro Trench	T	
Water	W	
GAS	G	
Security Cable	SEC	
Electricity Transfer (HV or EHV)	ET	
Security Camera Cable	SEC	
Available Utility Corridor	AUC	
Water Transfer	WT	
GAS Transfer	GT	
Storm Water Transfer	SWT	
Sanitary Transfer	ST	

NOTES:

1. ALL DIMENSIONS ARE IN CENTIMETERS .

Utilities Plan With Section ≥15 to <20 Meter

Definitions and Terms:

1. Definition:

Updated street section proposed to the General Department of Project Coordination with the aim of regulating works of utilities laying as the updated street drawings show:

a. The form of distribution of cross sections of standard public utilities (listed in drawing's key) below the street cross section.
b. Engineering features of sections (dimensions and distances from the adjoining sections and real estate's walls).
c. Projection of utilities routes on the street horizontal projection.

The section is built based on international experiences in this field. In addition, the updated section requires, before working thereon, approval of the Ministry of Municipal and Ruler Affairs (MoMRA) after MoMRA submits it to the related entities and obtains their approvals.

2. Range:

a. Geographic Range: All the Kingdom's regions.
b. The Manual applies to utilities laying in new streets and renewals of utilities in existing streets.
c. Road reserve locates between the two regression lines determined on the drawings as all sections of utilities must locate within the road reserve while the home connections must locate outside the road reserve within the regression region.

3. Degree of Mandatory:

The implementing manual of updated street section is considered a reference binding upon all concerned authorities within the course of public utilities abovementioned. In addition, all utility contractor shall strictly and accurately abide by all dimensions and distances determined regarding sections of utility implemented under the supervision of the concerned service entities. Any difference between the implemented routes and drawings will not be accepted and approved by utilities department represented by coordination and follow-up offices in the municipalities.

4. Beyond the range:

The general specifications of civil works in public utilities laying projects (second edition) issued by MoMRA shall be observed upon implementation of all civil works in public utilities projects.

5. Virtual Directions:

The right direction indicated in cross sections is north or east, accordingly, the utilities are distributed based on street direction.

6. Detailed Implementing Instructions:

They are necessary instructions for indication of utilities special conditions, and they are listed in a special manual "Implementing Regulations".

7. Service Sectors Distribution Management Matrix:

It is a matrix that aims to regulate allocation of additional routes for standard utilities and potential utilities in addition to management of the processes of planning routes of standard transfer services (water transfer, electricity transfer, sanitary transfer, storm water transfer).

8. Standard Vertical Dimensions:

The vertical dimensions set out in the drawings represent the minimum limits, and the final levels depend on levels of project line for every utility.

9. Mini Excavation and Micro Excavation:

The sign (|) refers to the location of mini excavation and micro excavation as set out in the general specification of civil works in public utilities laying projects (second edition) issued by MoMRA upon implementation of all civil works in public utilities projects.

10. Electricity Stations:

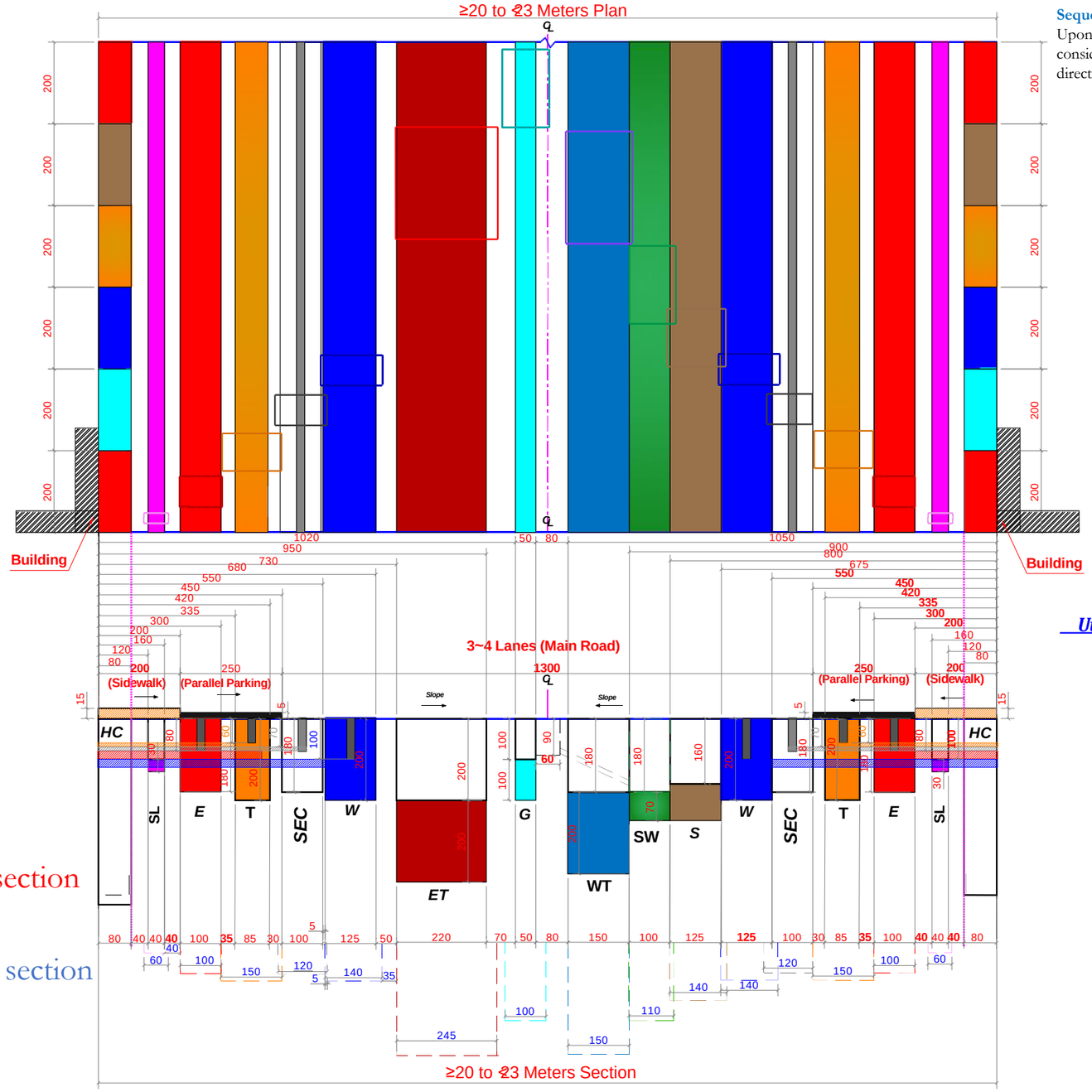
Regarding outlets of land cables with different voltages (380, 132, 33, 8, 13), they require a special consideration for every station and approval thereof by the concerned entities in the city.

11. Ordinary Excavation and Mini Excavation:

The method of open ordinary excavation is adopted for routes with width of 1m and more, while mini excavation is implemented in the routes that their width suits the specifications set out in the technical specifications of second edition of Manual of Civil Works Implementation in Public Utilities Laying Projects issued by MoMRA.

12. Manholes:

In case of dimensions of manholes that their width is more than 150 cm, coordination must be make in order to align any future requirements of the adjoining service entities.



Sequence of Priority Utility: :

Upon implementation, levels of each utility route shall be taken into consideration so as not cause conflict between utilities in cross direction.

VERTICAL CONVENTIONAL SEQUENCE FOR UTILITIES	
T	Telephone Main and Secondary With Mini And Micro Trench
SEC	Security Cable
SEC	Security Camera Cable
SL	Street Lighting & Traffic Lights
EDL	Electricity (LV or MD)
W	Water
G	GAS
SW	Storm Water
ET	Electricity Transfer (HV or EHV)
S	Sanitary

SEQUENCE OF PRIORITY URILITY

Utilities Plan With Section ≥20 to <23 Meter

LEGEND		
Home Connections	HC	
Street Lighting & Traffic Lights	SL	
Sanitary	S	
Storm Water	SW	
Electricity (LV or MV)	E	
Telephone Main and Secondary With Mini And Micro Trench	T	
Water	W	
GAS	G	
Security Cable	SEC	
Electricity Transfer (HV or EHV)	ET	
Security Camera Cable	SEC	
Available Utility Corridor	AUC	
Water Transfer	WT	
GAS Transfer	GT	
Storm Water Transfer	SWT	
Sanitary Transfer	ST	

NOTES:

1. ALL DIMENSIONS ARE IN CENTIMETERS .

Definitions and Terms:

1. Definition:

Updated street section proposed to the General Department of Project Coordination with the aim of regulating works of utilities laying as the updated street drawings show:

a. The form of distribution of cross sections of standard public utilities (listed in drawing's key) below the street cross section.
b. Engineering features of sections (dimensions and distances from the adjoining sections and real estate's walls).
c. Projection of utilities routes on the street horizontal projection.

The section is built based on international experiences in this field. In addition, the updated section requires, before working thereon, approval of the Ministry of Municipal and Ruler Affairs (MoMRA) after MoMRA submits it to the related entities and obtains their approvals.

2. Range:

a. Geographic Range: All the Kingdom's regions.
b. The Manual applies to utilities laying in new streets and renewals of utilities in existing streets.
c. Road reserve locates between the two regression lines determined on the drawings as all sections of utilities must locate within the road reserve while the home connections must locate outside the road reserve within the regression region.

3. Degree of Mandatory:

The implementing manual of updated street section is considered a reference binding upon all concerned authorities within the course of public utilities abovementioned. In addition, all utility contractor shall strictly and accurately abide by all dimensions and distances determined regarding sections of utility implemented under the supervision of the concerned service entities. Any difference between the implemented routes and drawings will not be accepted and approved by utilities department represented by coordination and follow-up offices in the municipalities.

4. Beyond the range:

The general specifications of civil works in public utilities laying projects (second edition) issued by MoMRA shall be observed upon implementation of all civil works in public utilities projects.

5. Virtual Directions:

The right direction indicated in cross sections is north or east, accordingly, the utilities are distributed based on street direction.

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8. Standard Vertical Dimensions:

The vertical dimensions set out in the drawings represent the minimum limits, and the final levels depend on levels of project line for every utility.

9. Mini Excavation and Micro Excavation:

The sign (|) refers to the location of mini excavation and micro excavation as set out in the general specification of civil works in public utilities laying projects (second edition) issued by MoMRA upon implementation of all civil works in public utilities projects.

10. Electricity Stations:

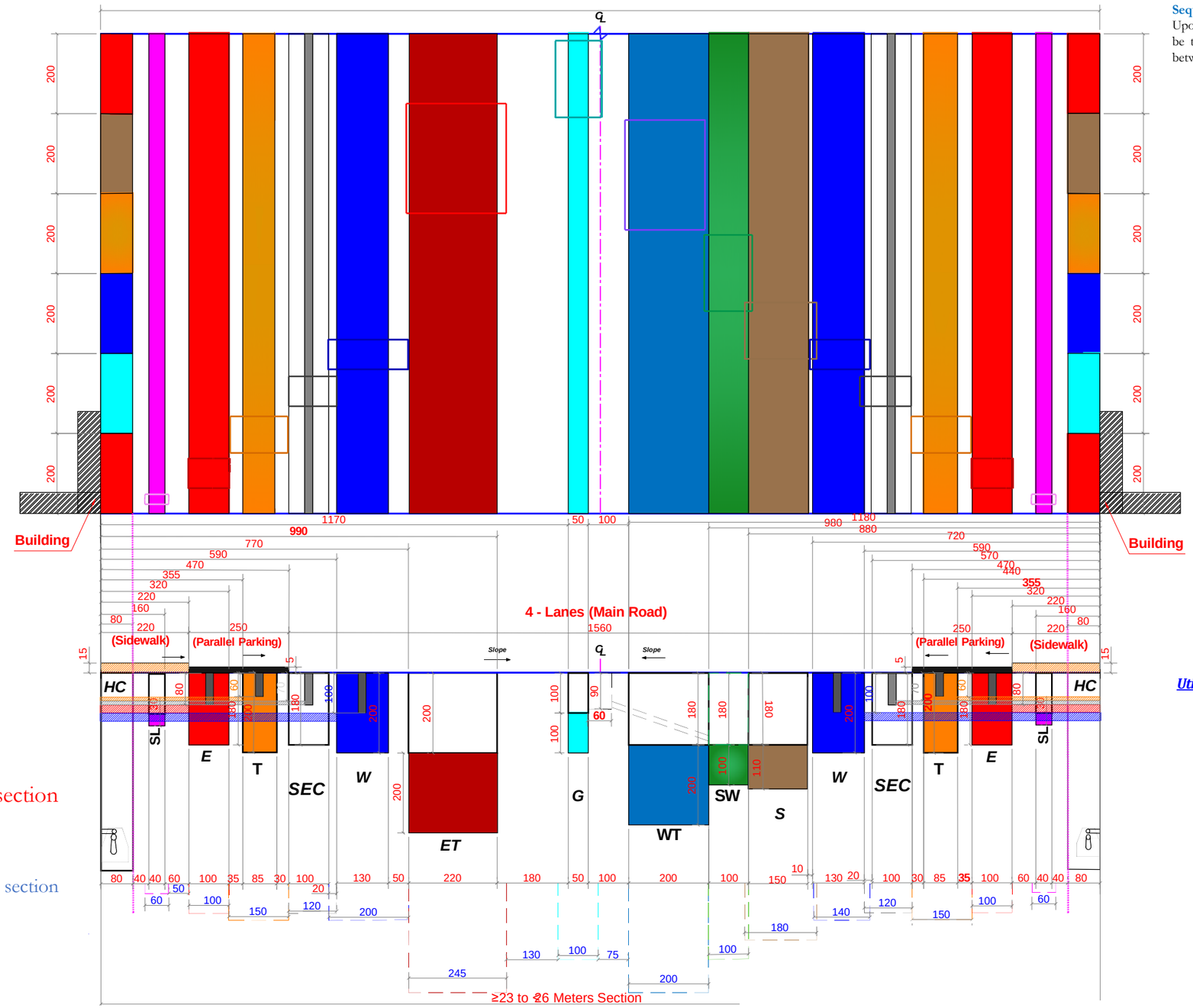
Regarding outlets of land cables with different voltages (380, 132, 33, 8, 13), they require a special consideration for every station and approval thereof by the concerned entities in the city.

11. Ordinary Excavation and Mini Excavation:

The method of open ordinary excavation is adopted for routes with width of 1m and more, while mini excavation is implemented in the routes that their width suits the specifications set out in the technical specifications of second edition of Manual of Civil Works Implementation in Public Utilities Laying Projects issued by MoMRA.

12. Manholes:

In case of dimensions of manholes that their width is more than 150 cm, coordination must be make in order to align any future requirements of the adjoining service entities.



Sequence of Priority Utility:

Upon implementation, levels of each utility route shall be taken into consideration so as not cause conflict between utilities in cross direction.

VERTICAL CONVENTIONAL SEQUENCE FOR UTILITIES	
T	Telephone Main and Secondary With Mini And Micro Trench
SEC	Security Cable
SEC	Security Camera Cable
SL	Street Lighting & Traffic Lights
EDL	Electricity (LV or MD)
W	Water
G	GAS
SW	Storm Water
ET	Electricity Transfer (HV or EHV)
S	Sanitary

SEQUENCE OF PRIORITY URILITY

LEGEND

Home Connections	HC	
Street Lighting & Traffic Lights	SL	
Sanitary	S	
Storm Water	SW	
Electricity (LV or MV)	E	
Telephone Main and Secondary With Mini And Micro Trench	T	
Water	W	
GAS	G	
Security Cable	SEC	
Electricity Transfer (HV or EHV)	ET	
Security Camera Cable	SEC	
Available Utility Corridor	AUC	
Water Transfer	WT	
GAS Transfer	GT	
Storm Water Transfer	SWT	
Sanitary Transfer	ST	

NOTES:

1. ALL DIMENSIONS ARE IN CENTIMETERS .

Utilities Plan With Section ≥23 to <26 Meter

Definitions and Terms:

1. Definition:

Updated street section proposed to the General Department of Project Coordination with the aim of regulating works of utilities laying as the updated street drawings show:

a. The form of distribution of cross sections of standard public utilities (listed in drawing's key) below the street cross section.
b. Engineering features of sections (dimensions and distances from the adjoining sections and real estate's walls).
c. Projection of utilities routes on the street horizontal projection.

The section is built based on international experiences in this field. In addition, the updated section requires, before working thereon, approval of the Ministry of Municipal and Ruler Affairs (MoMRA) after MoMRA submits it to the related entities and obtains their approvals.

2. Range:

a. Geographic Range: All the Kingdom's regions.
b. The Manual applies to utilities laying in new streets and renewals of utilities in existing streets.
c. Road reserve locates between the two regression lines determined on the drawings as all sections of utilities must locate within the road reserve while the home connections must locate outside the road reserve within the regression region.

3. Degree of Mandatory:

The implementing manual of updated street section is considered a reference binding upon all concerned authorities within the course of public utilities abovementioned. In addition, all utility contractor shall strictly and accurately abide by all dimensions and distances determined regarding sections of utility implemented under the supervision of the concerned service entities. Any difference between the implemented routes and drawings will not be accepted and approved by utilities department represented by coordination and follow-up offices in the municipalities.

4. Beyond the range:

The general specifications of civil works in public utilities laying projects (second edition) issued by MoMRA shall be observed upon implementation of all civil works in public utilities projects.

5. Virtual Directions:

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6. Detailed Implementing Instructions:

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8. Standard Vertical Dimensions:

The vertical dimensions set out in the drawings represent the minimum limits, and the final levels depend on levels of project line for every utility.

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The sign (|) refers to the location of mini excavation and micro excavation as set out in the general specification of civil works in public utilities laying projects (second edition) issued by MoMRA upon implementation of all civil works in public utilities projects.

10. Electricity Stations:

Regarding outlets of land cables with different voltages (380, 132, 33, 8, 13), they require a special consideration for every station and approval thereof by the concerned entities in the city.

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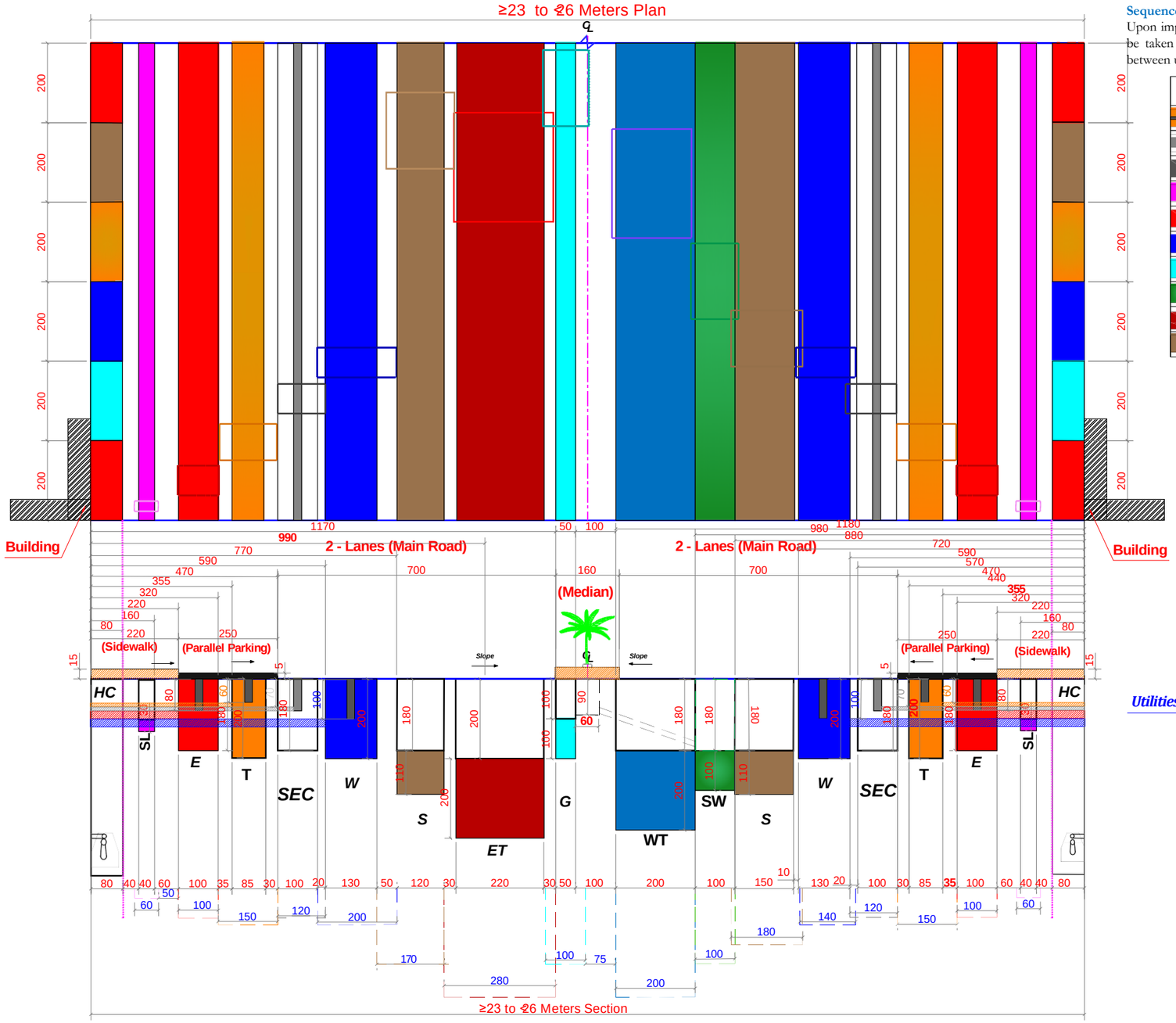
The method of open ordinary excavation is adopted for routes with width of 1m and more, while mini excavation is implemented in the routes that their width suits the specifications set out in the technical specifications of second edition of Manual of Civil Works Implementation in Public Utilities Laying Projects issued by MoMRA.

12. Manholes:

In case of dimensions of manholes that their width is more than 150 cm, coordination must be make in order to align any future requirements of the adjoining service entities.



Service section

Manhole section

Utilities Plan With Section ≥23 to <26 Meter

Sequence of Priority Utility:

Upon implementation, levels of each utility route shall be taken into consideration so as not cause conflict between utilities in cross direction.

VERTICAL CONVENTIONAL SEQUENCE FOR UTILITIES	
T	Telephone Main and Secondary With Mini And Micro Trench
SEC	Security Cable
SEC	Security Camera Cable
SL	Street Lighting & Traffic Lights
EDL	Electricity (LV or MD)
W	Water
G	GAS
SW	Storm Water
ET	Electricity Transfer (HV or EHV)
S	Sanitary

SEQUENCE OF PRIORITY URILITY

LEGEND

Home Connections	HC	
Street Lighting & Traffic Lights	SL	
Sanitary	S	
Storm Water	SW	
Electricity (LV or MV)	E	
Telephone Main and Secondary With Mini And Micro Trench	T	
Water	W	
GAS	G	
Security Cable	SEC	
Electricity Transfer (HV or EHV)	ET	
Security Camera Cable	SEC	
Available Utility Corridor	AUC	
Water Transfer	WT	
GAS Transfer	GT	
Storm Water Transfer	SWT	
Sanitary Transfer	ST	

NOTES:

1. ALL DIMENSIONS ARE IN CENTIMETERS .

Definitions and Terms:

1. Definition:

Updated street section proposed to the General Department of Project Coordination with the aim of regulating works of utilities laying as the updated street drawings show:

a. The form of distribution of cross sections of standard public utilities (listed in drawing's key) below the street cross section.
b. Engineering features of sections (dimensions and distances from the adjoining sections and real estate's walls).
c. Projection of utilities routes on the street horizontal projection.

The section is built based on international experiences in this field. In addition, the updated section requires, before working thereon, approval of the Ministry of Municipal and Ruler Affairs (MoMRA) after MoMRA submits it to the related entities and obtains their approvals.

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a. Geographic Range: All the Kingdom's regions.
b. The Manual applies to utilities laying in new streets and renewals of utilities in existing streets.
c. Road reserve locates between the two regression lines determined on the drawings as all sections of utilities must locate within the road reserve while the home connections must locate outside the road reserve within the regression region.

3. Degree of Mandatory:

The implementing manual of updated street section is considered a reference binding upon all concerned authorities within the course of public utilities abovementioned. In addition, all utility contractor shall strictly and accurately abide by all dimensions and distances determined regarding sections of utility implemented under the supervision of the concerned service entities. Any difference between the implemented routes and drawings will not be accepted and approved by utilities department represented by coordination and follow-up offices in the municipalities.

4. Beyond the range:

The general specifications of civil works in public utilities laying projects (second edition) issued by MoMRA shall be observed upon implementation of all civil works in public utilities projects.

5. Virtual Directions:

The right direction indicated in cross sections is north or east, accordingly, the utilities are distributed based on street direction.

6. Detailed Implementing Instructions:

They are necessary instructions for indication of utilities special conditions, and they are listed in a special manual "Implementing Regulations".

7. Service Sectors Distribution Management Matrix:

It is a matrix that aims to regulate allocation of additional routes for standard utilities and potential utilities in addition to management of the processes of planning routes of standard transfer services (water transfer, electricity transfer, sanitary transfer, storm water transfer).

8. Standard Vertical Dimensions:

The vertical dimensions set out in the drawings represent the minimum limits, and the final levels depend on levels of project line for every utility.

9. Mini Excavation and Micro Excavation:

The sign (|) refers to the location of mini excavation and micro excavation as set out in the general specification of civil works in public utilities laying projects (second edition) issued by MoMRA upon implementation of all civil works in public utilities projects.

10. Electricity Stations:

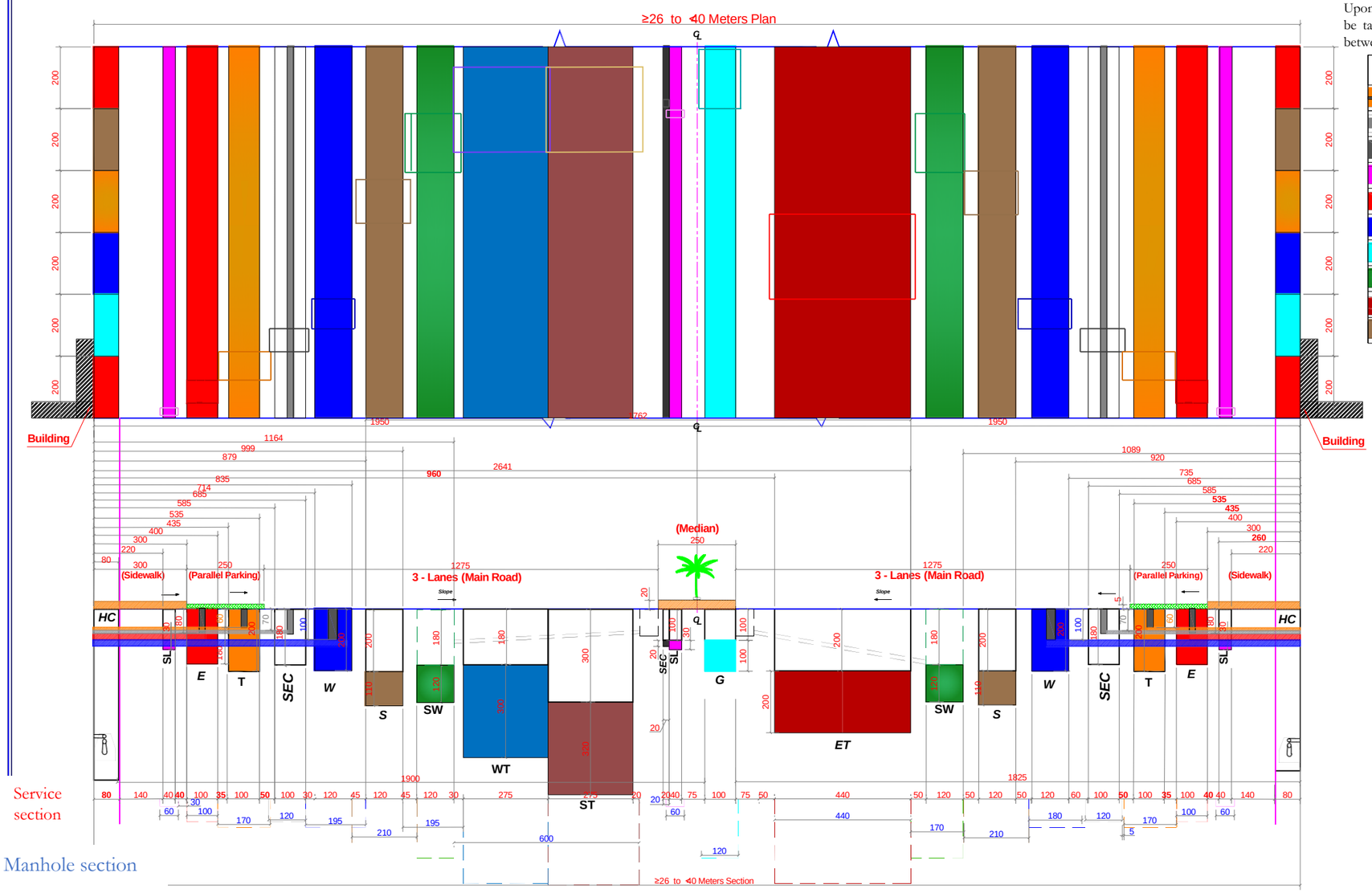
Regarding outlets of land cables with different voltages (380, 132, 33, 8, 13), they require a special consideration for every station and approval thereof by the concerned entities in the city.

11. Ordinary Excavation and Mini Excavation:

The method of open ordinary excavation is adopted for routes with width of 1m and more, while mini excavation is implemented in the routes that their width suits the specifications set out in the technical specifications of second edition of Manual of Civil Works Implementation in Public Utilities Laying Projects issued by MoMRA.

12. Manholes:

In case of dimensions of manholes that their width is more than 150 cm, coordination must be make in order to align any future requirements of the adjoining service entities.



Sequence of Priority Utility:

Upon implementation, levels of each utility route shall be taken into consideration so as not cause conflict between utilities in cross direction.

VERTICAL CONVENTIONAL SEQUENCE FOR UTILITIES	
T	Telephone Main and Secondary With Mini And Micro Trench
SEC	Security Cable
SEC	Security Camera Cable
SL	Street Lighting & Traffic Lights
EDL	Electricity (LV or MD)
W	Water
G	GAS
SW	Storm Water
ET	Electricity Transfer (HV or EHV)
S	Sanitary

SEQUENCE OF PRIORITY URILITY

LEGEND

Home Connections	HC	
Street Lighting & Traffic Lights	SL	
Sanitary	S	
Storm Water	SW	
Electricity (LV or MV)	E	
Telephone Main and Secondary With Mini And Micro Trench	T	
Water	W	
GAS	G	
Security Cable	SEC	
Electricity Transfer (HV or EHV)	ET	
Security Camera Cable	SEC	
Available Utility Corridor	AUC	
Water Transfer	WT	
GAS Transfer	GT	
Storm Water Transfer	SWT	
Sanitary Transfer	ST	

NOTES:

1. ALL DIMENSIONS ARE IN CENTIMETERS .

Utilities Plan With Section ≥26 to <40 Meters Plan

Definitions and Terms:

1. Definition:

Updated street section proposed to the General Department of Project Coordination with the aim of regulating works of utilities laying as the updated street drawings show:

a. The form of distribution of cross sections of standard public utilities (listed in drawing's key) below the street cross section.
b. Engineering features of sections (dimensions and distances from the adjoining sections and real estate's walls).
c. Projection of utilities routes on the street horizontal projection.

The section is built based on international experiences in this field. In addition, the updated section requires, before working thereon, approval of the Ministry of Municipal and Ruler Affairs (MoMRA) after MoMRA submits it to the related entities and obtains their approvals.

2. Range:

a. Geographic Range: All the Kingdom's regions.
b. The Manual applies to utilities laying in new streets and renewals of utilities in existing streets.
c. Road reserve locates between the two regression lines determined on the drawings as all sections of utilities must locate within the road reserve while the home connections must locate outside the road reserve within the regression region.

3. Degree of Mandatory:

The implementing manual of updated street section is considered a reference binding upon all concerned authorities within the course of public utilities abovementioned. In addition, all utility contractor shall strictly and accurately abide by all dimensions and distances determined regarding sections of utility implemented under the supervision of the concerned service entities. Any difference between the implemented routes and drawings will not be accepted and approved by utilities department represented by coordination and follow-up offices in the municipalities.

4. Beyond the range:

The general specifications of civil works in public utilities laying projects (second edition) issued by MoMRA shall be observed upon implementation of all civil works in public utilities projects.

5. Virtual Directions:

The right direction indicated in cross sections is north or east, accordingly, the utilities are distributed based on street direction.

6. Detailed Implementing Instructions:

They are necessary instructions for indication of utilities special conditions, and they are listed in a special manual "Implementing Regulations".

7. Service Sectors Distribution Management Matrix:

It is a matrix that aims to regulate allocation of additional routes for standard utilities and potential utilities in addition to management of the processes of planning routes of standard transfer services (water transfer, electricity transfer, sanitary transfer, storm water transfer).

8. Standard Vertical Dimensions:

The vertical dimensions set out in the drawings represent the minimum limits, and the final levels depend on levels of project line for every utility.

9. Mini Excavation and Micro Excavation:

The sign (|) refers to the location of mini excavation and micro excavation as set out in the general specification of civil works in public utilities laying projects (second edition) issued by MoMRA upon implementation of all civil works in public utilities projects.

10. Electricity Stations:

Regarding outlets of land cables with different voltages (380, 132, 33, 8, 13), they require a special consideration for every station and approval thereof by the concerned entities in the city.

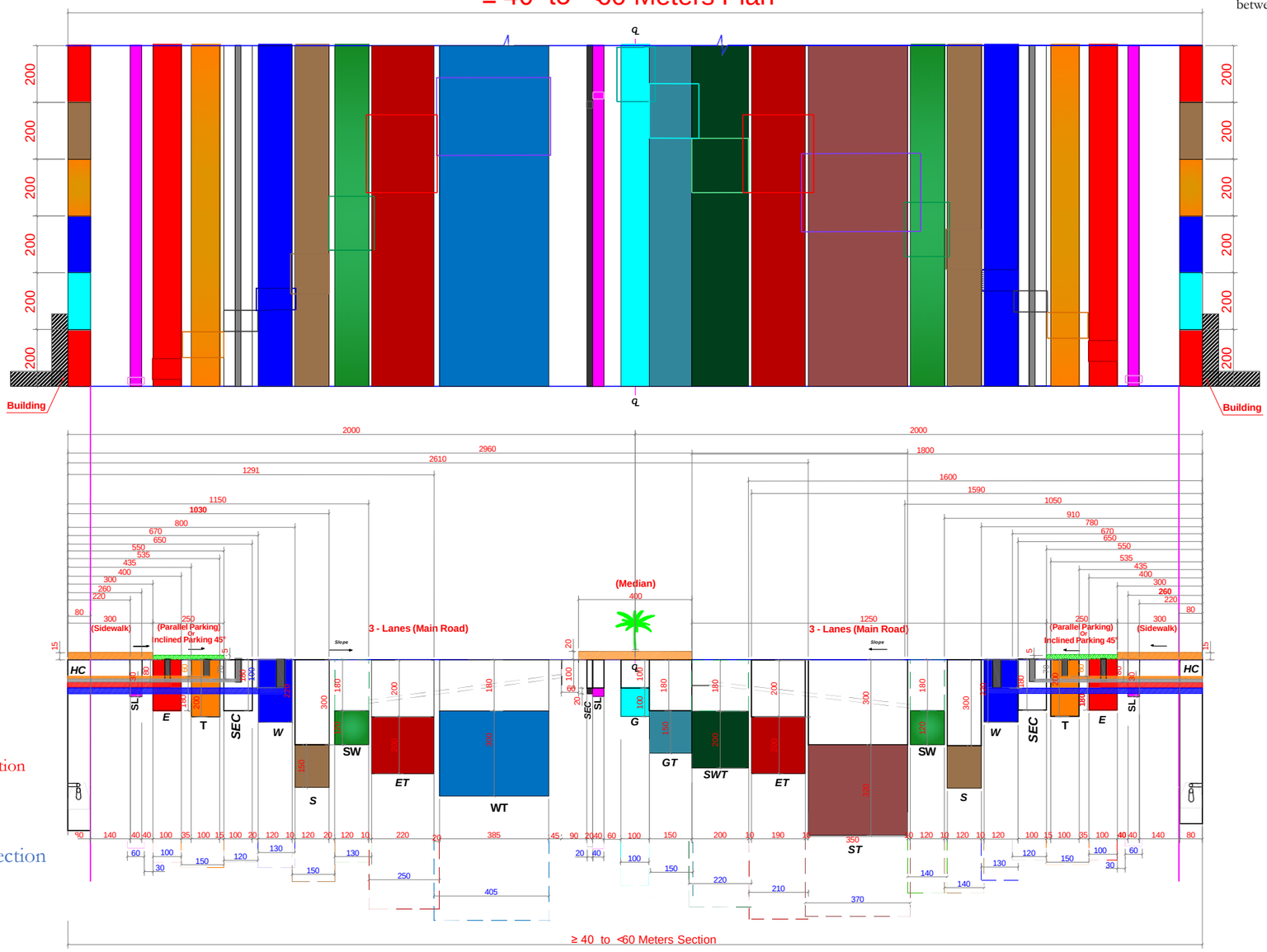
11. Ordinary Excavation and Mini Excavation:

The method of open ordinary excavation is adopted for routes with width of 1m and more, while mini excavation is implemented in the routes that their width suits the specifications set out in the technical specifications of second edition of Manual of Civil Works Implementation in Public Utilities Laying Projects issued by MoMRA.

12. Manholes:

In case of dimensions of manholes that their width is more than 150 cm, coordination must be make in order to align any future requirements of the adjoining service entities.

≥ 40 to <60 Meters Plan



Sequence of Priority Utility:

Upon implementation, levels of each utility route shall be taken into consideration so as not cause conflict between utilities in cross direction.

VERTICAL CONVENTIONAL SEQUENCE FOR UTILITIES	
T	Telephone Main and Secondary With Mini And Micro Trench
SEC	Security Cable
SEC	Security Camera Cable
SL	Street Lighting & Traffic Lights
EDL	Electricity (LV or MD)
W	Water
G	GAS
SW	Storm Water
ET	Electricity Transfer (HV or EHV)
S	Sanitary

SEQUENCE OF PRIORITY URILITY

LEGEND		
Home Connections	HC	
Street Lighting & Traffic Lights	SL	
Sanitary	S	
Storm Water	SW	
Electricity (LV or MV)	E	
Telephone Main and Secondary With Mini And Micro Trench	T	
Water	W	
GAS	G	
Security Cable	SEC	
Electricity Transfer (HV or EHV)	ET	
Security Camera Cable	SEC	
Available Utility Corridor	AUC	
Water Transfer	WT	
GAS Transfer	GT	
Storm Water Transfer	SWT	
Sanitary Transfer	ST	

NOTES:

1. ALL DIMENSIONS ARE IN CENTIMETERS .

Utilities Plan With Section ≥40 to <60 Meter

Definitions and Terms:

1. Definition:

Updated street section proposed to the General Department of Project Coordination with the aim of regulating works of utilities laying as the updated street drawings show:

a. The form of distribution of cross sections of standard public utilities (listed in drawing's key) below the street cross section.
b. Engineering features of sections (dimensions and distances from the adjoining sections and real estate's walls).
c. Projection of utilities routes on the street horizontal projection.

The section is built based on international experiences in this field. In addition, the updated section requires, before working thereon, approval of the Ministry of Municipal and Ruler Affairs (MoMRA) after MoMRA submits it to the related entities and obtains their approvals.

2. Range:

a. Geographic Range: All the Kingdom's regions.
b. The Manual applies to utilities laying in new streets and renewals of utilities in existing streets.
c. Road reserve locates between the two regression lines determined on the drawings as all sections of utilities must locate within the road reserve while the home connections must locate outside the road reserve within the regression region.

3. Degree of Mandatory:

The implementing manual of updated street section is considered a reference binding upon all concerned authorities within the course of public utilities abovementioned. In addition, all utility contractor shall strictly and accurately abide by all dimensions and distances determined regarding sections of utility implemented under the supervision of the concerned service entities. Any difference between the implemented routes and drawings will not be accepted and approved by utilities department represented by coordination and follow-up offices in the municipalities.

4. Beyond the range:

The general specifications of civil works in public utilities laying projects (second edition) issued by MoMRA shall be observed upon implementation of all civil works in public utilities projects.

5. Virtual Directions:

The right direction indicated in cross sections is north or east, accordingly, the utilities are distributed based on street direction.

6. Detailed Implementing Instructions:

They are necessary instructions for indication of utilities special conditions, and they are listed in a special manual "Implementing Regulations".

7. Service Sectors Distribution Management Matrix:

It is a matrix that aims to regulate allocation of additional routes for standard utilities and potential utilities in addition to management of the processes of planning routes of standard transfer services (water transfer, electricity transfer, sanitary transfer, storm water transfer).

8. Standard Vertical Dimensions:

The vertical dimensions set out in the drawings represent the minimum limits, and the final levels depend on levels of project line for every utility.

9. Mini Excavation and Micro Excavation:

The sign (|) refers to the location of mini excavation and micro excavation as set out in the general specification of civil works in public utilities laying projects (second edition) issued by MoMRA upon implementation of all civil works in public utilities projects.

10. Electricity Stations:

Regarding outlets of land cables with different voltages (380, 132, 33, 8, 13), they require a special consideration for every station and approval thereof by the concerned entities in the city.

11. Ordinary Excavation and Mini Excavation:

The method of open ordinary excavation is adopted for routes with width of 1m and more, while mini excavation is implemented in the routes that their width suits the specifications set out in the technical specifications of second edition of Manual of Civil Works Implementation in Public Utilities Laying Projects issued by MoMRA.

12. Manholes:

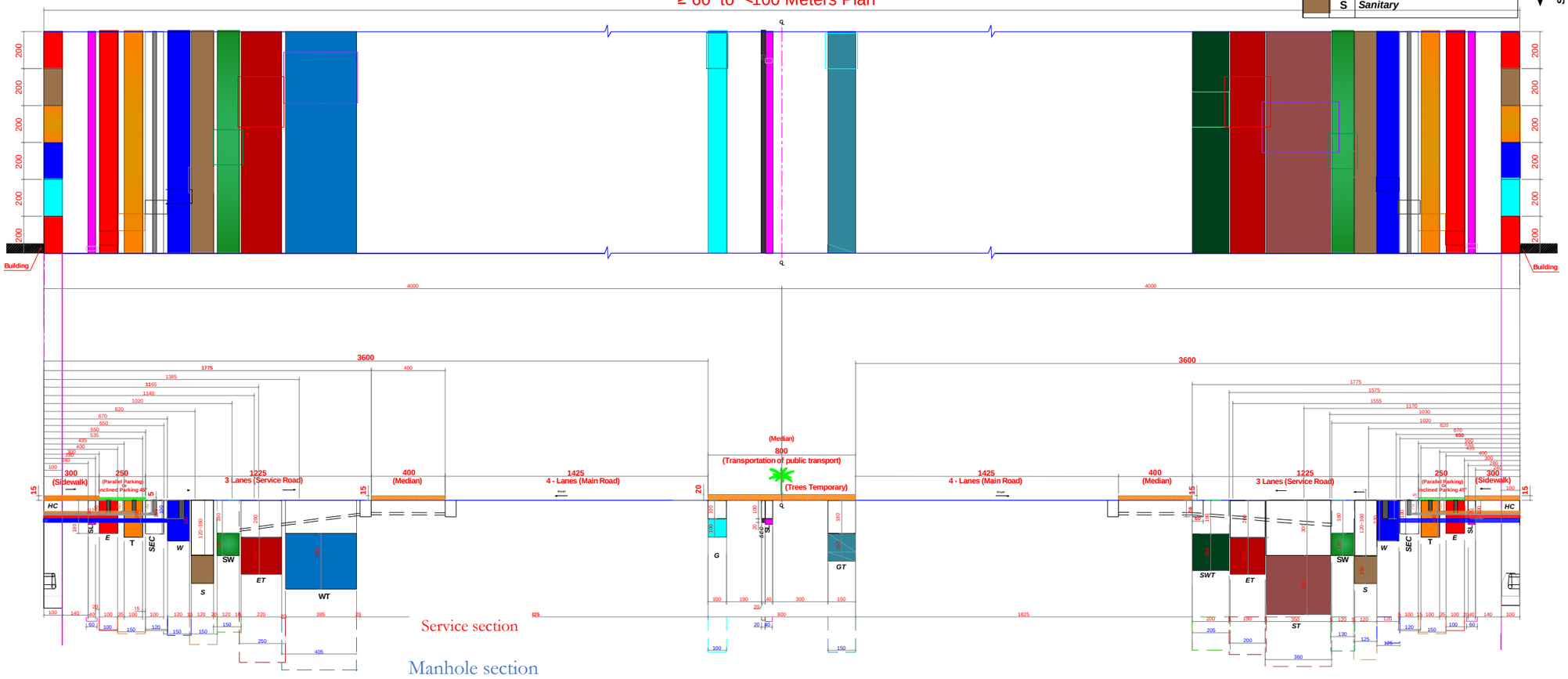
In case of dimensions of manholes that their width is more than 150 cm, coordination must be make in order to align any future requirements of the adjoining service entities.

Sequence of Priority Utility:
Upon implementation, levels of each utility route shall be taken into consideration so as not cause conflict between utilities in cross direction.

VERTICAL CONVENTIONAL SEQUENCE FOR UTILITIES	
T	Telephone Main and Secondary With Mini And Micro Trench
SEC	Security Cable
SEC	Security Camera Cable
SL	Street Lighting & Traffic Lights
EDL	Electricity (LV or MD)
W	Water
G	GAS
SW	Storm Water
ET	Electricity Transfer (HV or EHV)
S	Sanitary

SEQUENCE OF PRIORITY URILITY

≥ 60 to <100 Meters Plan



Utilities Plan With Section ≥60 to <100 Meter

Definitions and Terms:

1. Definition:

Updated street section proposed to the General Department of Project Coordination with the aim of regulating works of utilities laying as the updated street drawings show:

a. The form of distribution of cross sections of standard public utilities (listed in drawing's key) below the street cross section.
b. Engineering features of sections (dimensions and distances from the adjoining sections and real estate's walls).
c. Projection of utilities routes on the street horizontal projection.

The section is built based on international experiences in this field. In addition, the updated section requires, before working thereon, approval of the Ministry of Municipal and Ruler Affairs (MoMRA) after MoMRA submits it to the related entities and obtains their approvals.

2. Range:

a. Geographic Range: All the Kingdom's regions.
b. The Manual applies to utilities laying in new streets and renewals of utilities in existing streets.
c. Road reserve locates between the two regression lines determined on the drawings as all sections of utilities must locate within the road reserve while the home connections must locate outside the road reserve within the regression region.

3. Degree of Mandatory:

The implementing manual of updated street section is considered a reference binding upon all concerned authorities within the course of public utilities abovementioned. In addition, all utility contractor shall strictly and accurately abide by all dimensions and distances determined regarding sections of utility implemented under the supervision of the concerned service entities. Any difference between the implemented routes and drawings will not be accepted and approved by utilities department represented by coordination and follow-up offices in the municipalities.

4. Beyond the range:

The general specifications of civil works in public utilities laying projects (second edition) issued by MoMRA shall be observed upon implementation of all civil works in public utilities projects.

5. Virtual Directions:

The right direction indicated in cross sections is north or east, accordingly, the utilities are distributed based on street direction.

6. Detailed Implementing Instructions:

They are necessary instructions for indication of utilities special conditions, and they are listed in a special manual "Implementing Regulations".

7. Service Sectors Distribution Management Matrix:

It is a matrix that aims to regulate allocation of additional routes for standard utilities and potential utilities in addition to management of the processes of planning routes of standard transfer services (water transfer, electricity transfer, sanitary transfer, storm water transfer).

8. Standard Vertical Dimensions:

The vertical dimensions set out in the drawings represent the minimum limits, and the final levels depend on levels of project line for every utility.

9. Mini Excavation and Micro Excavation:

The sign (|) refers to the location of mini excavation and micro excavation as set out in the general specification of civil works in public utilities laying projects (second edition) issued by MoMRA upon implementation of all civil works in public utilities projects.

10. Electricity Stations:

Regarding outlets of land cables with different voltages (380, 132, 33, 8, 13), they require a special consideration for every station and approval thereof by the concerned entities in the city.

11. Ordinary Excavation and Mini Excavation:

The method of open ordinary excavation is adopted for routes with width of 1m and more, while mini excavation is implemented in the routes that their width suits the specifications set out in the technical specifications of second edition of Manual of Civil Works Implementation in Public Utilities Laying Projects issued by MoMRA.

12. Manholes:

In case of dimensions of manholes that their width is more than 150 cm, coordination must be make in order to align any future requirements of the adjoining service entities.

LEGEND

Home Connections	HC	
Street Lighting & Traffic Lights	SL	
Sanitary	S	
Storm Water	SW	
Electricity (LV or MV)	E	
Telephone Main and Secondary With Mini And Micro Trench	T	
Water	W	
GAS	G	
Security Cable	SEC	
Electricity Transfer (HV or EHV)	ET	
Security Camera Cable	SEC	
Available Utility Corridor	AUC	
Water Transfer	WT	
GAS Transfer	GT	
Storm Water Transfer	SWT	
Sanitary Transfer	ST	

NOTES:

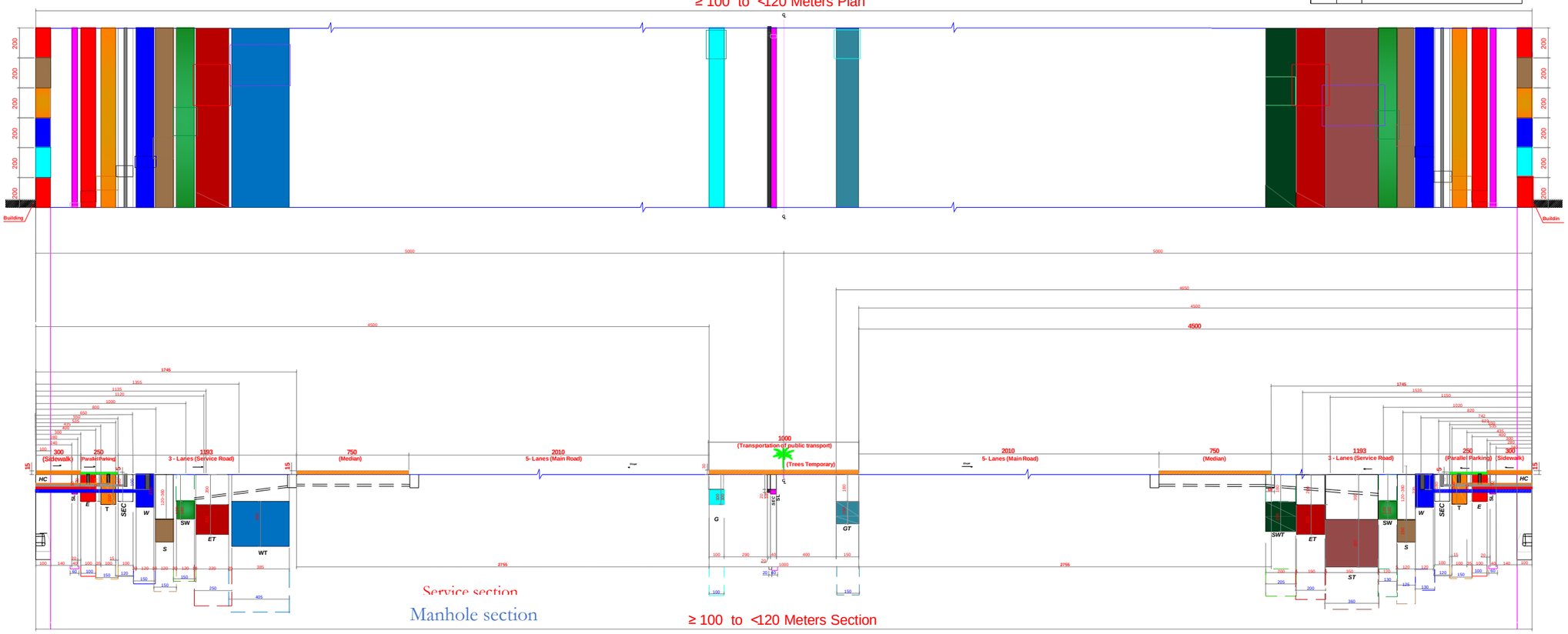
1. ALL DIMENSIONS ARE IN CENTIMETERS .

Sequence of Priority Utility:
Upon implementation, levels of each utility route shall be taken into consideration so as not cause conflict between utilities in cross direction.

VERTICAL CONVENTIONAL SEQUENCE FOR UTILITIES	
T	Telephone Main and Secondary With Mini And Micro Trench
SEC	Security Cable
SEC	Security Camera Cable
SL	Street Lighting & Traffic Lights
EDL	Electricity (LV or MD)
W	Water
G	GAS
SW	Storm Water
ET	Electricity Transfer (HV or EHV)
S	Sanitary

SEQUENCE OF PRIORITY URILITY

≥ 100 to <120 Meters Plan



≥ 100 to <120 Meters Section

Utilities Plan With Section ≥100 to <120 Meter

Definitions and Terms:

1. Definition:

Updated street section proposed to the General Department of Project Coordination with the aim of regulating works of utilities laying as the updated street drawings show:

a. The form of distribution of cross sections of standard public utilities (listed in drawing's key) below the street cross section.
b. Engineering features of sections (dimensions and distances from the adjoining sections and real estate's walls).
c. Projection of utilities routes on the street horizontal projection.

The section is built based on international experiences in this field. In addition, the updated section requires, before working thereon, approval of the Ministry of Municipal and Ruler Affairs (MoMRA) after MoMRA submits it to the related entities and obtains their approvals.

2. Range:

a. Geographic Range: All the Kingdom's regions.
b. The Manual applies to utilities laying in new streets and renewals of utilities in existing streets.
c. Road reserve locates between the two regression lines determined on the drawings as all sections of utilities must locate within the road reserve while the home connections must locate outside the road reserve within the regression region.

3. Degree of Mandatory:

The implementing manual of updated street section is considered a reference binding upon all concerned authorities within the course of public utilities abovementioned. In addition, all utility contractor shall strictly and accurately abide by all dimensions and distances determined regarding sections of utility implemented under the supervision of the concerned service entities. Any difference between the implemented routes and drawings will not be accepted and approved by utilities department represented by coordination and follow-up offices in the municipalities.

4. Beyond the range:

The general specifications of civil works in public utilities laying projects (second edition) issued by MoMRA shall be observed upon implementation of all civil works in public utilities projects.

5. Virtual Directions:

The right direction indicated in cross sections is north or east, accordingly, the utilities are distributed based on street direction.

6. Detailed Implementing Instructions:

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7. Service Sectors Distribution Management Matrix:

It is a matrix that aims to regulate allocation of additional routes for standard utilities and potential utilities in addition to management of the processes of planning routes of standard transfer services (water transfer, electricity transfer, sanitary transfer, storm water transfer).

8. Standard Vertical Dimensions:

The vertical dimensions set out in the drawings represent the minimum limits, and the final levels depend on levels of project line for every utility.

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The sign (|) refers to the location of mini excavation and micro excavation as set out in the general specification of civil works in public utilities laying projects (second edition) issued by MoMRA upon implementation of all civil works in public utilities projects.

10. Electricity Stations:

Regarding outlets of land cables with different voltages (380, 132, 33, 8, 13), they require a special consideration for every station and approval thereof by the concerned entities in the city.

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12. Manholes:

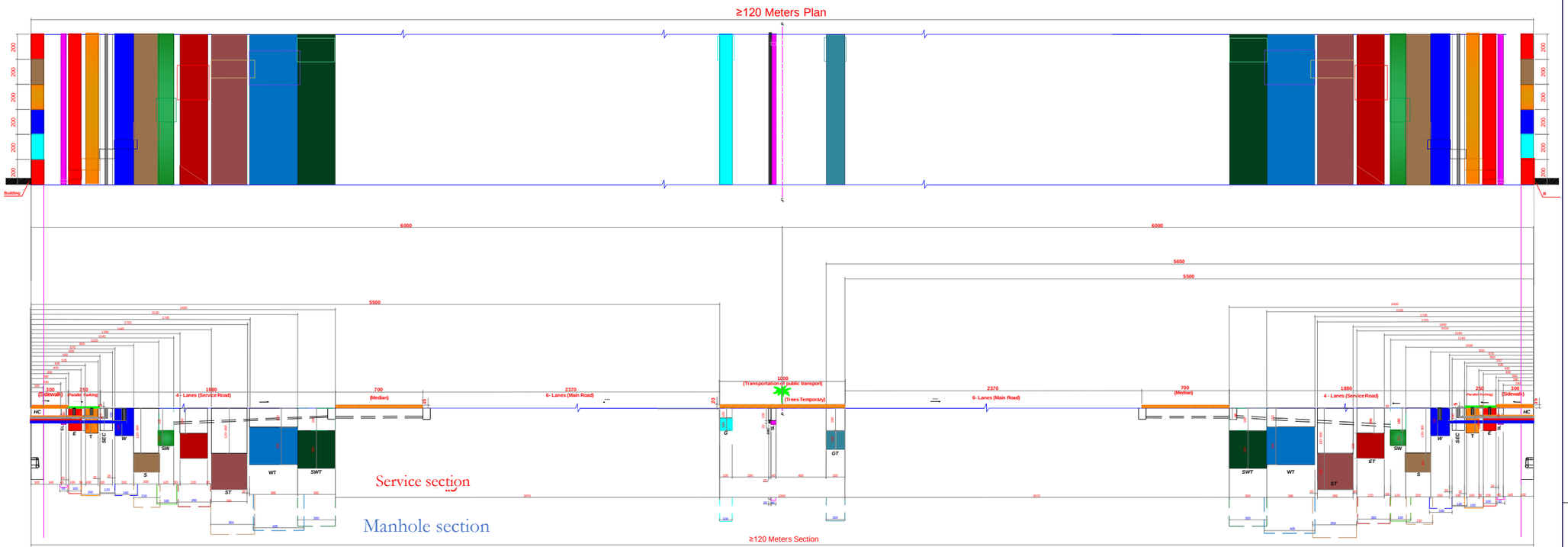
In case of dimensions of manholes that their width is more than 150 cm, coordination must be make in order to align any future requirements of the adjoining service entities.

LEGEND

Home Connections	HC	
Street Lighting & Traffic Lights	SL	
Sanitary	S	
Storm Water	SW	
Electricity (LV or MV)	E	
Telephone Main and Secondary With Mini And Micro Trench	T	
Water	W	
GAS	G	
Security Cable	SEC	
Electricity Transfer (HV or EHV)	ET	
Security Camera Cable	SEC	
Available Utility Corridor	AUC	
Water Transfer	WT	
GAS Transfer	GT	
Storm Water Transfer	SWT	
Sanitary Transfer	ST	

NOTES:

1. ALL DIMENSIONS ARE IN CENTIMETERS .



LEGEND

Home Connections	HC	
Street Lighting & Traffic Lights	SL	
Sanitary	S	
Storm Water	SW	
Electricity (LV or MV)	E	
Telephone Main and Secondary With Mini And Micro Trench	T	
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Security Cable	SEC	
Electricity Transfer (HV or EHV)	ET	
Security Camera Cable	SEC	
Available Utility Corridor	AUC	
Water Transfer	WT	
GAS Transfer	GT	
Storm Water Transfer	SWT	
Sanitary Transfer	ST	

NOTES:

1. ALL DIMENSIONS ARE IN CENTIMETERS .

Sequence of Priority Utility:

Upon implementation, levels of each utility route shall be taken into consideration so as not cause conflict between utilities in cross direction.

VERTICAL CONVENTIONAL SEQUENCE FOR UTILITIES	
T	Telephone Main and Secondary With Mini And Micro Trench
SEC	Security Cable
SEC	Security Camera Cable
SL	Street Lighting & Traffic Lights
EDL	Electricity (LV or MD)
W	Water
G	GAS
SW	Storm Water
ET	Electricity Transfer (HV or EHV)

SEQUENCE OF PRIORITY URILITY

Utilities Plan With Section ≥120 Meter

Definitions and Terms:

1. Definition:

Updated street section proposed to the General Department of Project Coordination with the aim of regulating works of utilities laying as the updated street drawings show:

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b. Engineering features of sections (dimensions and distances from the adjoining sections and real estate's walls).
c. Projection of utilities routes on the street horizontal projection.

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a. Geographic Range: All the Kingdom's regions.
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c. Road reserve locates between the two regression lines determined on the drawings as all sections of utilities must locate within the road reserve while the home connections must locate outside the road reserve within the regression region.

3. Degree of Mandatory:

The implementing manual of updated street section is considered a reference binding upon all concerned authorities within the course of public utilities abovementioned. In addition, all utility contractor shall strictly and accurately abide by all dimensions and distances determined regarding sections of utility implemented under the supervision of the concerned service entities. Any difference between the implemented routes and drawings will not be accepted and approved by utilities department represented by coordination and follow-up offices in the municipalities.

4. Beyond the range:

The general specifications of civil works in public utilities laying projects (second edition) issued by MoMRA shall be observed upon implementation of all civil works in public utilities projects.

5. Virtual Directions:

The right direction indicated in cross sections is north or east, accordingly, the utilities are distributed based on street direction.

6. Detailed Implementing Instructions:

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The vertical dimensions set out in the drawings represent the minimum limits, and the final levels depend on levels of project line for every utility.

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The sign (|) refers to the location of mini excavation and micro excavation as set out in the general specification of civil works in public utilities laying projects (second edition) issued by MoMRA upon implementation of all civil works in public utilities projects.

10. Electricity Stations:

Regarding outlets of land cables with different voltages (380, 132, 33, 8, 13), they require a special consideration for every station and approval thereof by the concerned entities in the city.

11. Ordinary Excavation and Mini Excavation:

The method of open ordinary excavation is adopted for routes with width of 1m and more, while mini excavation is implemented in the routes that their width suits the specifications set out in the technical specifications of second edition of Manual of Civil Works Implementation in Public Utilities Laying Projects issued by MoMRA.

12. Manholes:

In case of dimensions of manholes that their width is more than 150 cm, coordination must be make in order to align any future requirements of the adjoining service entities.