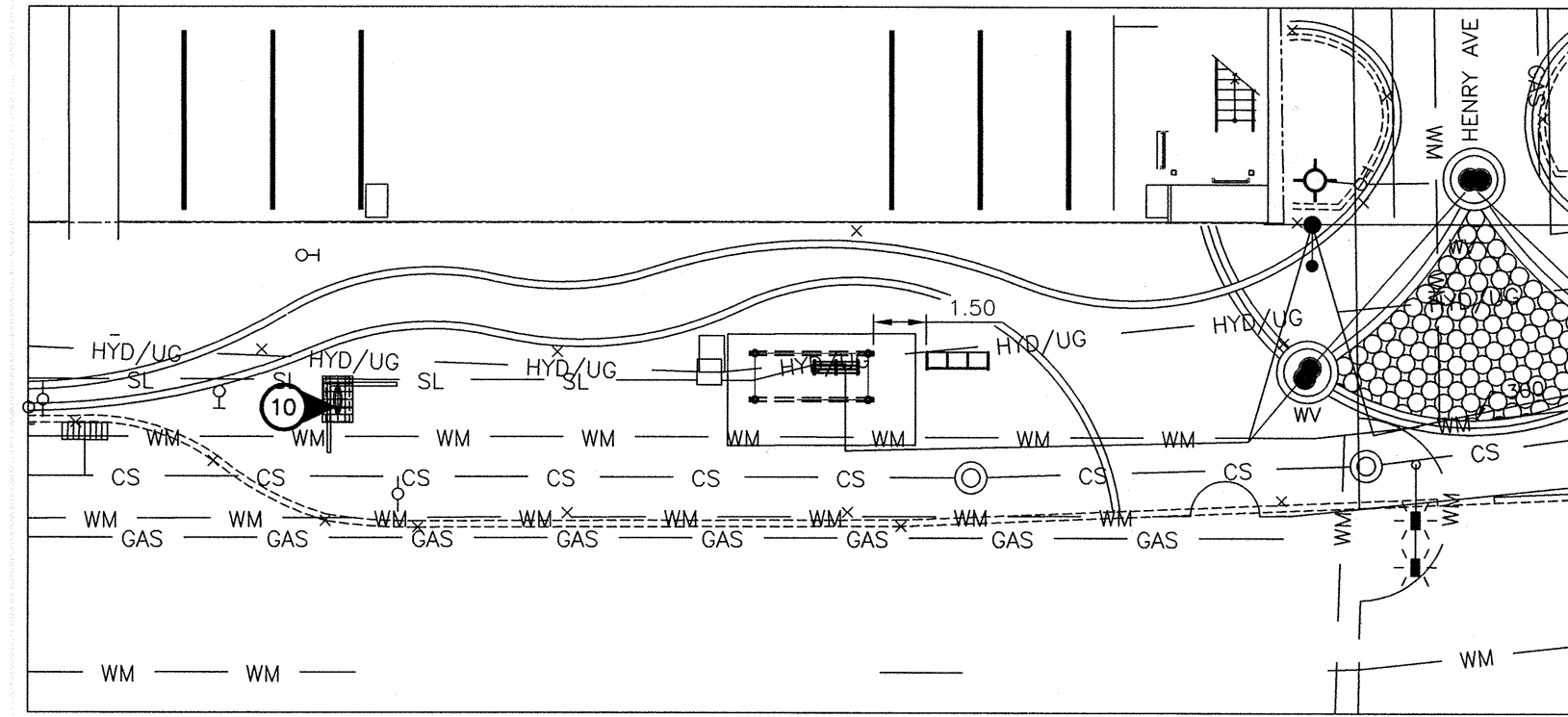
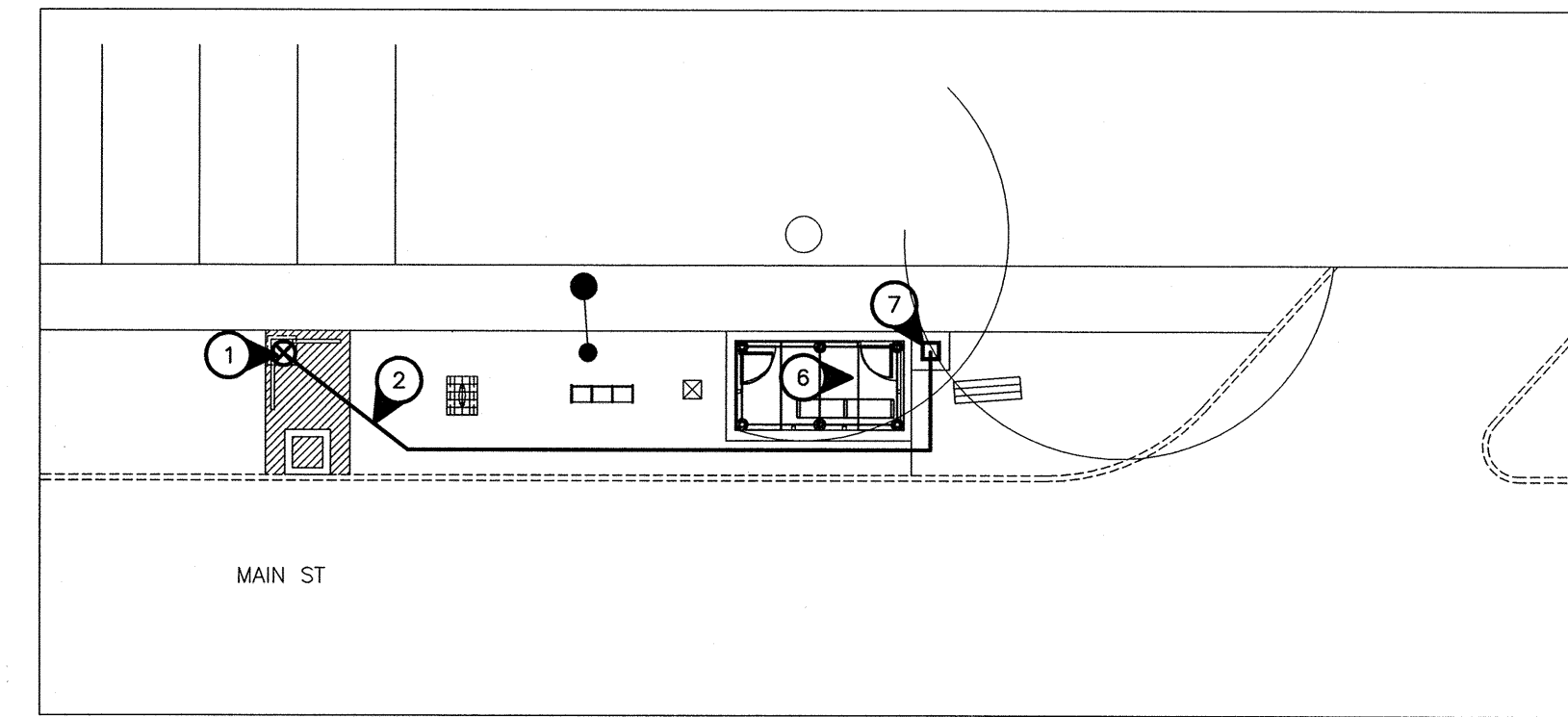


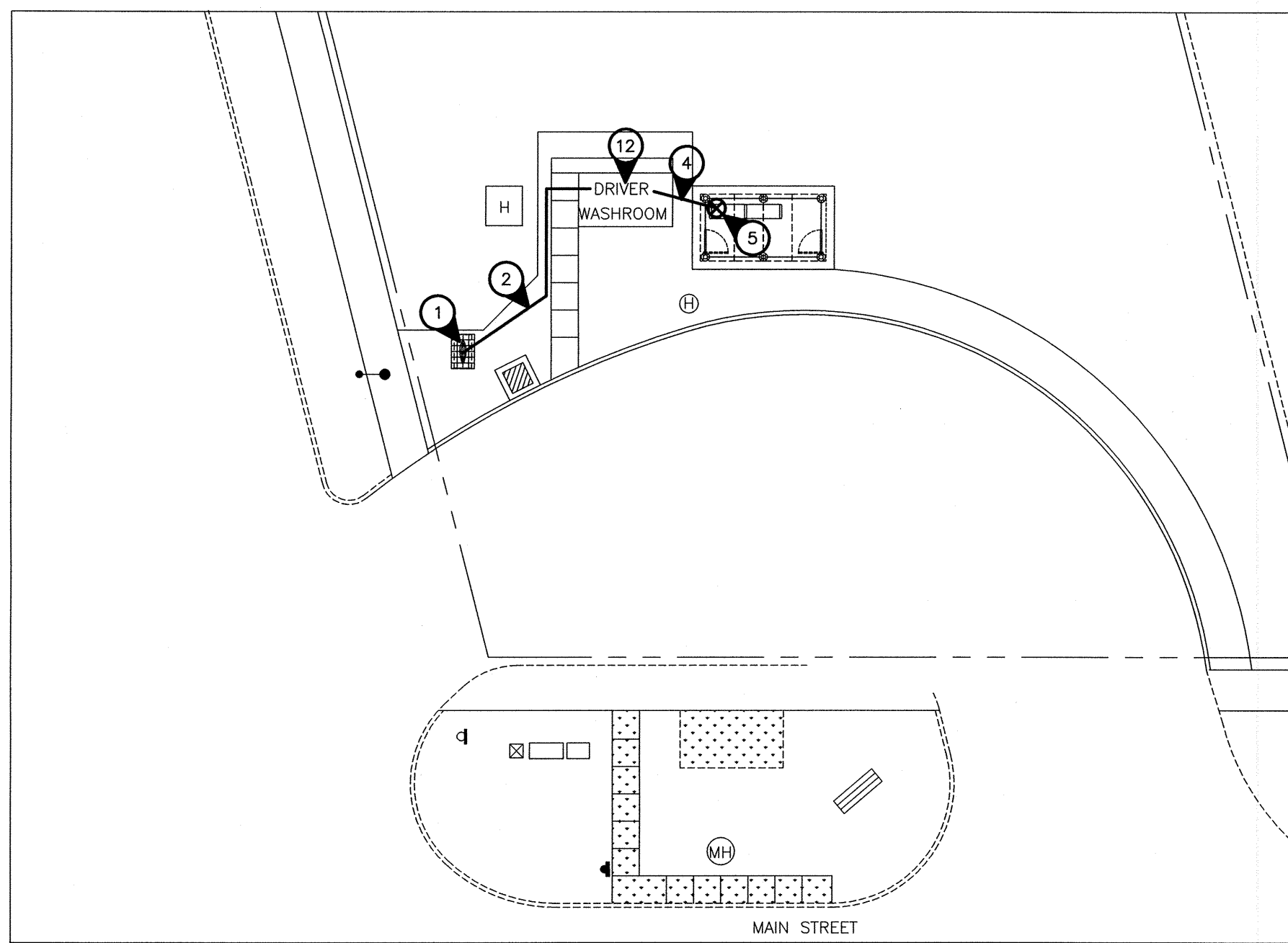
Northbound Main, N/S Logan
Stop 10630 Logan



Southbound Main, F/S Henry



Southbound Main, F/S Opp Seven Oaks
Stop 30043 Seven Oaks



Southbound Main, N/S Margaret
Stop 30748 Margaret



SPECIFIC ELECTRICAL NOTES

- 1 WIRE & CONNECT ILLUMINATED TRANSIT SIGN AS REQUIRED. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SIGNAGE SUPPLIER.
- 2 BURIED 2 #12 RWU-90 CU AND GROUND IN A 25MM RIGID PVC CONDUIT. PROVIDE TRENCHING, BACKFILLING AND SURFACE REPAIR AS REQUIRED. PUSH BELOW SURFACE WHERE PRACTICAL.
- 3 NEW POWER PEDESTAL 'A'. SEE DETAIL THIS DRAWING.
- 4 2#12 AND 4#10 RWU90 CU AND GROUND IN A 32MM RIGID PVC CONDUIT.
- 5 CONNECT NEW TRANSIT SHELTER LIGHTING AND HEATING CIRCUITS TO POWER PEDESTAL AS REQUIRED. COORDINATE POWER ACCESS WITH SUPPLIER.
- 6 DISCONNECT EXISTING HEATED SHELTER AND PROTECT WIRES FOR REINSTALLATION. EXISTING WIRING AND C.B.'S MAY BE REUSED IF IN GOOD CONDITION AND SIZED CORRECTLY FOR NEW LOADS. CONNECT NEW SHELTER FOLLOWING INSTALLATION.
- 7 PROVIDE A MATCHING 15A-1P C.B. IN EXISTING POWER PEDESTAL FOR NEW SIGN. SIGN TO BE PHOTOCELL CONTROLLED.
- 8 DISCONNECT EXISTING HEATED SHELTER. REMOVE WIRING AS FAR AS PRACTICAL. CAP OFF IN AN APPROVED MANNER.
- 9 CONNECT NEW SIGN TO EXISTING STREET LIGHT/SERVICE POLE INDICATED. PROVIDE A 15A-2P WEATHER-PROOF SERVICE ENTRANCE RATED DISCONNECT AT SIGN (240V-1PH). FPE RH 102-2.
- 10 DISCONNECT EXISTING ILLUMINATED SIGN AND PROTECT WIRES FOR REINSTALLATION. CONNECT NEW SIGN FOLLOWING INSTALLATION.
- 11 DISCONNECT EXISTING ILLUMINATED SIGN. REMOVE WIRING AS FAR AS PRACTICAL. CAP OFF IN AN APPROVED MANNER.
- 12 PROVIDE A 15A-1P C.B. (SIGN), (1) 30A-2P & (1) 15A-2P C.B. (ELEC HEAT), AND (1) 15A-1P C.B. (SHELTER LIGHTING) IN PANELBOARD WITHIN BUILDING. NEW C.B.'S TO MATCH EXISTING LIGHTING AND SIGN TO BE PHOTOCELL CONTROLLED.

ELECTRICAL SPECIFICATION

1. Scope of Work - The contract shall include the furnishing of labour, new material, equipment and services necessary and reasonably implied and incidental to the complete installation of the electrical work shown on the plans and specifications. Supply and install all devices required for the complete approved system, operating to the complete satisfaction of the Contract Administrator.
2. Laws, Rules, Ordinances and Inspections - The entire electrical installation shall comply with the latest edition of the Canadian Electrical Code and with all provincial and municipal laws, rules and ordinances. Prepare and submit to the proper authorities all necessary permits and pay all permit fees.
3. Responsibility - Be responsible for any damage caused The City or their contractors by improperly carrying out this contract.
4. Drawings - The Contractor shall carefully examine all drawings relating to the work, to be certain that the work under this contract can be carried out and, prior to the submission of his/her Bid, report at once to the Contract Administrator any defect, discrepancy, omission or interference affecting the work of this section or the guarantee of same.
5. Identification - Install designatory lettering on all electrical equipment. Label electrical circuit and devices with lamacoid plates.
6. Guarantee - The Contractor shall guarantee the satisfactory operation of all work and apparatus included and installed under this section for a period of twelve (12) calendar months after the final acceptance of the complete building.
7. Existing Work - The Contractor shall take into account items which he/she is responsible for due to the changes and alterations to the existing site and allow for such items that may occur in his/her Bid price.
8. Minimum wire size #12 AWG all wiring to be copper.
9. All new distribution equipment is to be weather-proof, vandal-resistant. All new circuit breakers provided for existing panelboards are to match existing.
10. Identify all existing underground plant and utilities. Repair any damage to existing underground plant and utilities caused during installation of electrical equipment wiring and bases.
11. Provide trenching, and backfilling and surface repair.

GENERAL NOTES:

1. CONTRACTOR TO VERIFY LOCATION OF ALL UTILITIES WITH UTILITY COMPANY PRIOR TO CONSTRUCTION.
2. LOCATIONS OF SIGNS AND PAVING ARE APPROXIMATE. CONTRACTOR TO LAYOUT ALL WORKS FOR APPROVAL BY CONTRACT ADMINISTRATOR AND WINNIPEG TRANSIT PRIOR TO REMOVALS AND ADJUST LOCATIONS AS DIRECTED.
3. INSTALL JUNCTION BOX IN SHELTER TO PROVIDE POWER FOR LIGHTING AND HEATING CIRCUITS.
4. ALL DIMENSION ARE IN METRIC UNLESS OTHERWISE NOTED. DECIMAL NUMBERS INDICATE METRES AND WHOLE NUMBERS INDICATED MILLIMETRES.
5. CONFIRM ALL DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO CONTRACT ADMINISTRATOR PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
6. CONTRACTOR TO PROTECT ALL TREES, POLES, CURBS, AREAWAYS ETC. TO REMAIN TO CITY OF WINNIPEG STANDARDS.
7. CONTRACTOR IS RESPONSIBLE FOR ALL REMOVALS AS REQUIRED TO CONSTRUCT ALL WORKS AS SHOWN ON PLANS AND DETAILS. ALL ITEMS TO BE REMOVED MUST BE DISPOSED OF LEGALLY OFF SITE. ALL REUSABLE PAVING STONE TO BE STOCKPILED IN A SECURE LOCATION FOR REINSTALLATION OR DELIVERY TO STREETS & TRANSPORTATION.
8. WHERE CONTRACTOR IS REPAIRING EXISTING SURFACE MATERIALS, ALL BASE COURSES TO MATCH EXISTING CONDITION.
9. CONTRACTOR TO REPAIR AT HIS OWN COST ANY DAMAGE DONE DURING CONSTRUCTION TO CITY OR ADJACENT PROPERTIES TO C.O.W. STANDARDS.
10. COORDINATION NOTES:
 - ELECTRICAL
 - CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR FOR DISCONNECT OF SIGNS AND SHELTERS PRIOR TO REMOVAL OF ANY BASES.
 - SIGNS
 - CONTRACTOR TO SUPPLY AND INSTALL ALL CONDUIT FOR ELECTRICAL WIRING IN TOTEM AND ILLUMINATED SIGN BASES TO POWER SOURCE. CONFIRM CONNECTION LOCATIONS WITH SIGN MANUFACTURER PRIOR TO INSTALLATION.
 - SHELTERS
 - CONTRACTOR TO INSTALL SHELTER BASES C/W ALL CONDUIT AS REQUIRED FOR HEATING AND LIGHTING LINES.
11. REFER ALSO TO WRITTEN SPECIFICATIONS.

NOVA 3 ENGINEERING LTD.
CONSULTING ENGINEERS

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R3C 1C7 JN: 29-032
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No.	Revisions	Date	By
02-27-09	1:200		
Designed By	Drawn By	Checked By	
DZ	DF	VJT	

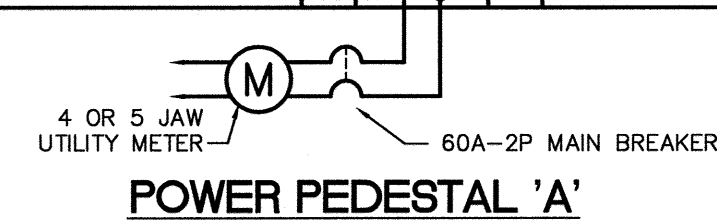
APGM
Certificate of Authorization
Nova 3 Engineering Ltd.
No. 962 Date: 2009.03.02

McGOWAN RUSSELL
Client

WINNIPEG TRANSIT
Project Title
BUS STOP UPGRADE PROGRAM PHASE 3 ELECTRICAL WORKS
Sheet Title
ALL STOPS - ELECTRICAL PLANS 4 OF 4

Project No. 06-029 / 29-032 Drawing No. E4

DESCRIPTION	BKR	CIRCUIT	BKR	DESCRIPTION	
SIGN	15	1	2	15	SHELTER LIGHTING
ELECTRIC HTR #10 WIRE	30	3	4	-	SPACE
	5	6	-	-	SPACE
ELECTRIC HTR	15	7	8	-	SPACE
	9	10	-	-	SPACE
SPARE	15	11	12	-	SPACE



- POWER PEDESTAL 'A'**
- NOTES: 1. POWER PEDESTAL TO BE W.P., LOCKABLE, MANCO OR APPROVED EQUAL.
2. SIGN AND SHELTER LIGHTING CIRCUITS TO BE PHOTOCELL CONTROLLED.
3. FEEDERS TO PEDESTAL FROM UTILITY ARE BY OTHERS.
4. COORDINATE METERING WITH UTILITY.