

Project: Expansion of Steel Manufacturing Unit namely “Crest Steel (Una) Pvt. Ltd.”	Pre-Feasibility Report
Location: VPO Karluhi, Tehsil Amb, District Una, Himachal Pradesh	
Client : M/s. Crest Steel (Una) Pvt. Ltd.	

PRE FEASIBILITY REPORT

1. EXECUTIVE SUMMARY

M/s. Crest Steel (Una) Pvt. Ltd. is an existing Steel Manufacturing Unit located at VPO Karluhi, Tehsil Amb, District Una, Himachal Pradesh. The existing industrial unit deals with the manufacturing of TMT Bars. Initially, TMT bars were manufactured with 3 Induction Furnace of capacity 10 MT each and 1 rolling mill with reheating furnace. Then in 2014, 1 additional new rolling mill was installed within the project. The existing capacity of the industrial unit is 350 TPD (or 105000 MT/annum) of TMT bars. Now, after looking into present scenario regarding the financial condition of the industry as well as requirement of market, the industry wants to increase the capacity of production by adding one induction furnace of capacity 20 MT and 1 rolling mill. Thus, after expansion production capacity of the industrial unit will become 2,35,000 MT/annum comprising of TMT Bars (1,91,250 MT/annum) and MS angles (43,750 MT/annum).

It is Category ‘B’ project and falls in 3(a) Schedule as per EIA Notification, 2006 & amendments thereof.

The Google Earth Image showing location of the project & its surroundings of the project is given below in **Figure 1**.



Figure 1: Google Earth Image showing location of the project & its surroundings

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2. Introduction of the project/Background information

(i) Identification of project and project proponent. In case of mining project, a copy of mining lease /letter of intent should be given.

M/s. Crest Steel (Una) Pvt. Ltd. is an existing Steel Manufacturing Unit located at VPO Karluhi, Tehsil Amb, District Una, Himachal Pradesh. The land documents are enclosed as **Annexure 1**. Earlier, industry was known with name of “M/s Crest Steel Power Ltd.” which was changed to “M/s Crest Steel (Una) Pvt. Ltd.” The existing industrial unit deals with the manufacturing of TMT Bars. Initially, TMT bars were manufactured with 3 Induction Furnace of capacity 10 MT each and 1 rolling mill with reheating furnace. Then in 2014, 1 additional new rolling mill was installed within the project. The existing capacity of the industrial unit is 350 TPD (or 105000 MT/annum) of TMT bars. Thus, after expansion production capacity of the industrial unit will become 2,35,000 MT/annum comprising of TMT Bars (1,91,250 MT/annum) and MS angles (43,750 MT/annum) with additional 1 No. of Induction Furnace of capacity 20 MT each and 1 rolling mill.

M/s. Crest Steel (Una) Pvt. Ltd. is a Private Limited company is incorporated on 03rd April, 2012. The current Directors of the company are as under:

1. Mr. S.L. Gupta
2. Mr. Sachin Gupta

All the promoters are well versed with the process involved & can handle the project efficiently.

(ii) Brief description of nature of the project.

In view of the tremendous market potential of Iron & Steel, project proponent have decided to expand the capacity of the existing Steel Plant by adding one Induction Furnace of 20 MT capacity and 1 rolling mill along with existing 3 Nos. of Induction Furnace of capacity 10 MT, 1 reheating furnace and 1 rolling mill. The production details of unit existing & proposed are as under in **Table-1**:

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Table-1: Production details for Existing as well for Expansion

S. No.	Products	Existing (MTD)	Additional (MTD)	After expansion (MTD)
1.	TMT Bars	1,05,000	86,250	1,91,250
2.	MS Angles	-	43,750	43,750
	Total	1,05,000	1,30,000	2,35,000

(iii) Need for the project and its importance to the country and or region.

The economy of India is the seventh-largest economy in the world measured by nominal GDP and the third-largest by purchasing power parity (PPP). The country is classified as a newly industrialized country, one of the G-20 major economies, a member of BRICS and a developing economy with an average growth rate of approximately 7% over the last two decades. This growth rate has a great impact on domestic consumption of steel as well as export potential to other countries. As a result of this, the demand for iron & steel remains extremely good, this would continue for next 10 years if not less, since the per capita consumption of steel in India is still very low compared to other developed countries.

For rapid development of economy and infrastructure of the country, it is necessary to increase the production of steel within the country. National Steel Policy – 2005 has the long term goal of having a modern and efficient steel industry of world standard in India. The focus is to achieve global competitiveness not only in terms of cost, quality and product-mix but also in terms of global benchmarks of efficiency and productivity. The Policy aims to achieve over 100 million Metric Tonnes of Steel per year by 2019-2020 from the 2004-2005 level of 38 mt. This implies an annual growth of around 7.3% per year since 2004-2005.

The above strategic goal is justified on the ground that steel consumption in the world, around 1000 Million Metric Tonnes in 2004, is expected to grow at 3.0 percent per annum to reach 1,395 Million Metric Tonnes in 2015, compared to 2 percent per annum in the past fifteen years. China will continue to have a dominant share of the world steel demand. At home, the Indian growth rate of steel production over the past fifteen years was 7.0 percent per annum. The projected growth rate of 7.3 percent per annum in India compares well with the projected national income growth rate of 7-8 percent per annum, given an income elasticity of steel consumption.

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(iv) Demand-Supply Gap

The project is envisaged to meet the demand supply gap in both domestic market and export market, as demand of steel is increasing day by day. For rapid development of economy and infrastructure of the country, it is necessary to increase the production of steel within the country. National Steel Policy – 2005 has the long term goal of having a modern and efficient steel industry of world standard in India. The focus is to achieve global competitiveness not only in terms of cost, quality and product-mix but also in terms of global benchmarks of efficiency and productivity. The Policy aims to achieve over 100 million Metric Tonnes of Steel per year by 2019-2020 from the 2004-2005 level of 38 mt. This implies an annual growth of around 7.3% per year since 2004-05.

(v) Imports vs. Indigenous production

Raw materials will be procured from domestic market.

(vi) Export Possibility

No export is involved in initial stage of project; however, later the option of export will also be looked into.

(vii) Domestic/ export Markets.

The project is being promoted to cater Commercial market, domestic market.

(viii) Employment Generation (direct and Indirect) due to the project.

The employment details are given in **Table-2**. For existing industrial unit, 107 persons are employed covering both technical & non-technical workers, out of which, 50 workers are residing within industry premises. However, after expansion, overall 150 persons will be employed covering both technical & non-technical workers.

Table-2: Employment Details

S. No.	Type of Employment	Himachali		Non- Himachali		After Expansion
		Existing	Additional	Existing	Additional	
1.	Management/ Official Staff	15	0	2	0	17
2.	Skilled/ Supervisory	20	8	5	5	38
3.	Un-skilled/ Workers	40	22	25	8	95
	Total	75	30	32	13	150



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3. Project Description

(i) Type of project interlinked and interdependent projects, if any.

Not applicable

(ii) Location (map showing general location, specific location, and project boundary & project site layout) with coordinates.

Location of the project is attached as .kml file. Also, Google Earth Image showing project & surroundings within 500 m is shown above in **Figure-1**.

(iii) Details of alternate sites considered and the basis of selecting the proposed site, particularly the environmental considerations gone into should be highlighted.

No alternative site is required, as the expansion of the project is within the existing plant boundary only. So, consideration of alternate site is not applicable.

No, alternate technology is selected for steel making.

(iv) Size or magnitude of operation.

The existing industrial unit deals with the manufacturing of TMT Bars. Initially, TMT bars were manufactured with 3 Induction Furnace of capacity 10 MT each and 1 rolling mill with reheating furnace. Then in 2014, 1 additional new rolling mill was installed within the project. The existing capacity of the industrial unit is 350 TPD (or 105000 MT/annum) of TMT bars. Thus, after expansion production capacity of the industrial unit will become 2,35,000 MT/annum comprising of TMT Bars (1,91,250 MT/annum) and MS angles (43,750 MT/annum) with additional 1 No. of Induction Furnace of capacity 20 MT each and 1 rolling mill. The bifurcated production details of unit existing & proposed are detailed in **Table-1** above.

(v) Project description with process details (a schematic diagram/ flow chart showing the project layout, components of the project etc. should be given)

The details of the raw material required are given below in **Table-3**. The layout plan is enclosed as **Drawing-1**. The raw material i.e. scrap of 1,05,000 MT/ annum & ferro alloys 800 MT/annum is required for existing production of TMT bars. Whereas for expansion, raw material in the form of scrap & ferro alloys are used for production of TMT bars & MS angles.



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Table 3: Details of the raw materials for the existing & proposed production of TMT Bars

S. No.	Status	Raw Material	Quantity (MT/ annum)	Source	Mode of transport
1.	Existing Unit	Scrap	1,05,000	Mostly from Local Market	By road through trucks
		Ferro Alloys	800		
2.	Additional	Scrap	60,000	Mostly from Local Market	By road through trucks
		Ferro Alloys	600		

Manufacturing Process

Manufacturing flow chart is given below in **Figure-2**.

(vi) Raw material; required along with estimated quantity, likely source, marketing area of final product/s, Mode of transport of raw material and finished product.

The raw materials details and the final products along with all manufacturing process are explained in Point v.

(vii) Resource optimization/ recycling and reuse, envisaged in the project, if any, should be briefly outlined.

No industrial effluent is being generated from the existing project. Only domestic wastewater is being generated; which is treated in STP of capacity 30 KLD provided within the project premises. After expansion also, no industrial effluent will be generated from the project and domestic wastewater will be treated in the STP.

(viii) Availability of water its source, Energy/ power requirement and source should be given.

Water supply will be met through tubewell (1 No.). The domestic water requirement and process water requirement for existing industry is 10 KLD & 50 KLD respectively. The domestic water requirement and process water requirement after expansion will be 13 KLD & 70 KLD respectively.

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The existing power load available is 16,000 KW supplied by Himachal Pradesh State Electricity Board, out of which only 12,000 KW is being used for existing capacity. Power backup for the existing project is being done by 1 DG set of capacity 500 KVA.

Power load is sufficient for expansion also. Power backup for the expansion will be done by existing DG set of capacity 500 KVA.

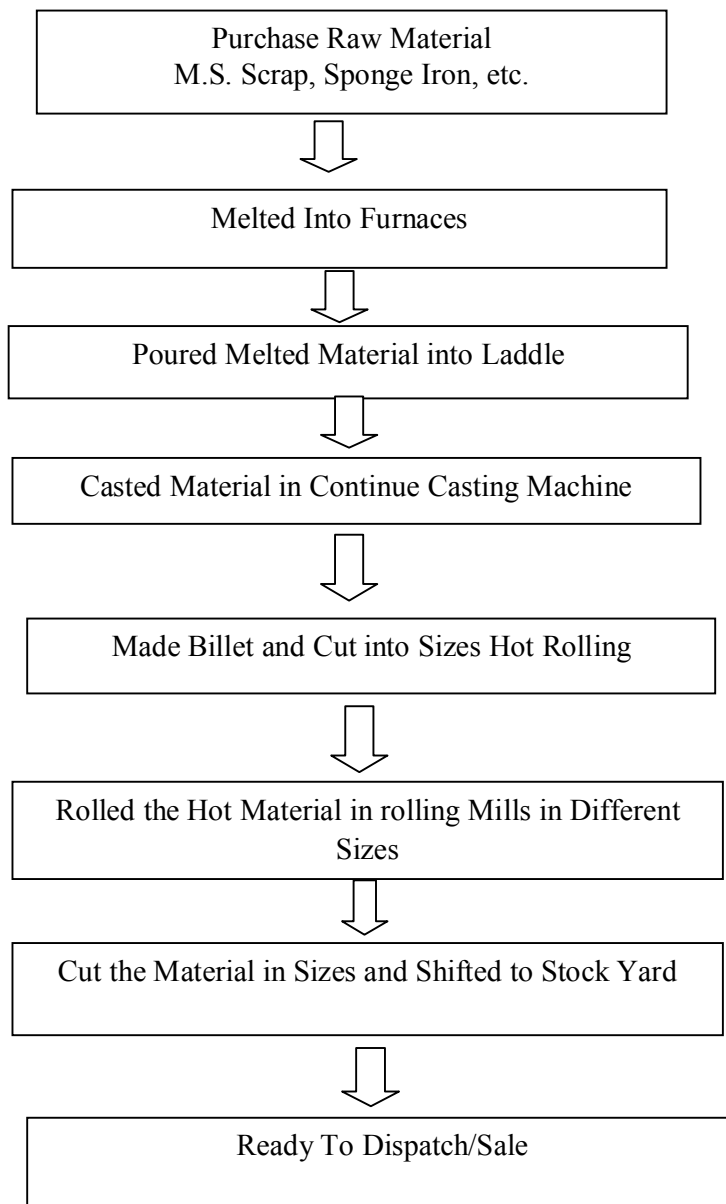


Figure-2: Manufacturing Flow Chart

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(ix) Quantity of wastes to be generated (liquid and solid) and scheme for their agreement/disposal.

Domestic Waste:

Approximately, 31 kg/day of domestic solid waste is being generated from the existing project & after expansion, approx. 44 kg/day of domestic waste will be generated, which will be properly collected and segregated into biodegradable and non-biodegradable waste. The solid waste is being disposed off as per MSW (Management & Handling) Rules, 2016.

Industrial Waste:

4 MT/day of Slag is being generated from existing industrial unit. After recovery of the metals from the slag, remaining slag is disposed off to low-lying areas. After expansion, the quantity of slag is estimated to be 7 MT/day. Similarly, metals will be recovered from the slag and the remaining slag will be disposed off to low-lying areas.

Hazardous Waste:

Hazardous waste produced from the existing industrial unit is 10 T/annum under Category 35.1 and 0.17 KL/annum under Category 5.1 of Schedule I. Renewal of authorization of hazardous waste have been obtained from HPPCB. Agreement has been done with M/s. Shiwalik Solid waste Management Limited for disposal of hazardous waste. After expansion, hazardous waste produced from the industrial unit will be 18 T/annum under Category 35.1, and 0.2 KL/annum under Category 5.1 of Schedule I.

Domestic Effluent:

Approx. 10 KLD (50 workers @ 135 lpcd + 57 workers @ 45 lpcd) of total water domestic water is required, out of which, 8 KLD of domestic effluent is being generated from the existing project which is treated in the STP of 30 KLD provided within the project premises. After expansion, the quantity of domestic water requirement is estimated to be 13 KLD, out of which, 10 KLD of domestic effluent will be generated and the same will be treated in the existing STP.

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Industrial Effluent:

No industrial effluent is being generated from the existing industrial unit and even, after expansion, no liquid effluent will be generated.

(x) Schematic representations of the feasibility drawing which give information of EIA purpose.

See Form-I enclosed.

4. Site Analysis

(i) Connectivity.

The existing industrial unit is connected to SH-25 from the industry. Chararu Takarla Railway Station is located at a distance of approximately 14.5 km in ‘SE’ direction, Ludhiana Airport, Sahnewal is located at a distance of 47 km in ‘NW’ direction and International Airport, Mohali is located at a distance of 45 km in ‘E’ direction.

(ii) Land Form, Land use and land ownership.

Land documents are enclosed as **Annexure-1**.

(iii) Topography (along with map).

Toposheet is enclosed with the application.

(iv) Existing land use pattern (agriculture, non- agriculture, forest, water bodies (including area under CRZ)), shortest distances from the periphery of the project to periphery of the forests, national Park, wild life sanctuary, eco sensitive areas, water bodies (distance from the HFL of the river), CRZ. In case of notified industrial area, a copy of the Gazette notification should be given.

Letter from Himachal Govt. dated 24th October, 2005 for setting up of project in an Industrial Area is attached along as **Annexure-2**.

(v) Existing Infrastructure

The land is already in use for industry.



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(vi) Soil classification

Major soil type of the region is alluvial soil and Non-calcic soil. As the project is of expansion project on the existing land, so, pre-construction investigation has already been done at site.

(vii) Climatic data from secondary sources.

The climate of the district is tropical to temperate in nature, as the terrain varies from plains to high hills. Temperature varies from minimum of 4°C in winter to maximum of 46°C in summer. The area receives rainfall during monsoon period, extending from June to September and also non-monsoon period (winter).

(viii) Social Infrastructure available.

The project is an industrial project in a notified industrial area.

5. Planning Brief

(i) Planning Concept (type of industries, facilities, transportation etc.) Town and Country Planning/Development authority Classification.

The project is an existing industrial unit and exists in notified industrial area. The expansion will be done as per the layout plan which is attached as **Drawing-1**.

(ii) Population Projection

As of 2011 India census, Una district had a population of 521,173.

(iii) Land use planning (breakup along with green belt etc.).

As per layout plan which is attached as **Drawing-1**.

(iv) Assessment of Infrastructure Demand (Physical & Social)

The industry is a steel manufacturing unit which increases the job opportunities in nearby area.

(v) Amenities/Facilities.

Existing building and facilities are shown on the layout plan which is enclosed as **Drawing-1**.



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6. Proposed Infrastructure

(i) Industrial Area (Processing Area).

The project is an existing industrial unit and exists in notified industrial area. Letter from Himachal Govt. dated 24th October, 2005 for setting up of project in an Industrial Area is attached along as **Annexure-2**.

(ii) Residential Area (Non Processing Area).

Approximately 60 Nos. of Quarters exist within the project premises.

(iii) Green Belt.

Popular and Ashoka trees planted around the boundary wall of the unit.

(iv) Social Infrastructure.

The project is providing employment to the workers which overall improves their economic condition.

(v) Connectivity (Traffic and Transportation Road/Rail/Metro/Water ways etc).

Already exist.

(vi) Drinking Water Management (Source & Supply of water).

Water supply is met through Tubewell (1 No.).

(vii) Sewerage System.

Domestic wastewater is being treated in the STP of 30 KLD capacity provided within the project premises and further treated water is being utilized for plantation purpose around the boundary wall.

(viii) Industrial Waste Management.

4 MT/day of Slag is being generated from existing industrial unit. After recovery of the metals from the slag, remaining slag is disposed off to low-lying areas. After expansion, the quantity of slag is estimated to be 7 MT/day. Similarly, metals will be recovered from the slag and the remaining slag will be disposed off to low-lying areas.

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Hazardous Waste:

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(ix) Solid Waste Management.

Approximately, 31 kg/day of domestic solid waste is being generated from the existing project & after expansion, approx. 44 kg/day of domestic waste will be generated, which will be properly collected and segregated into biodegradable and non-biodegradable waste. The solid waste is being disposed off as per MSW (Management & Handling) Rules, 2016.

(x) Power Requirement & Supply/ source.

The existing power load available is 16,000 KW supplied by Himachal Pradesh State Electricity Board, out of which only 12,000 KW is being used for existing capacity. Power backup for the existing project is being done by 1 DG set of capacity 500 KVA.

Power load is sufficient for expansion also. Power backup for the expansion will be done by 1 existing DG set of capacity 500 KVA.

7. Rehabilitation and Resettlement (R & R) Plan

(i) Policy to be adopted (Central/State) in respect of the project affected persons including home oustees, land oustees and landless laborers (a brief outline to be given).

Not applicable

8. Project Schedule & Cost Estimates

(i) Likely date of start of construction and likely date of completion (Time schedule for the project to be given).

Although the industry is an existing industry, commencement of expansion will be done after grant of EC letter. The estimated date of start of expansion unit is January, 2019 and completion is March, 2019.

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(ii) Estimated project cost along with analysis in terms of economic viability of the project:

The existing project cost is Rs. 79.62 Crores and after expansion, the cost of the project will become Rs. 84.42 Crores. The details regarding the project cost is given below in **Table-4:**

Table-4: Details of Project Cost

S.No	Particulars	Amount (In Lakhs)		
		Existing (Rs.)	Proposed (Rs.)	Total Cost (Rs.)
1.	Land	153.00	-	153.00
2.	Building+ Civil Work+ Road	107.00	-	107.00
3.	Plant & Machinery	4572.00	700.00	5272.00
4.	Miscellaneous Fixed Assets	80.00	-	80.00
5.	Furniture & fix.	6.36	-	6.36
6.	Pre-Operative Exp.	44.00	-	44.00
7.	Contingencies	-	20.00	20.00
8.	Working Capital Required	3000.00	-	2760.12
	Total Cost	Rs. 7962.36	Rs. 720.00	Rs. 8442.48

9. Analysis of proposal (Final Recommendations)

(i) Financial and social benefits with special emphasis on the benefit to the local people including tribal population, if any, in the area:

For rapid development of economy and infrastructure of the country, it is necessary to increase the production of steel within the country. National Steel Policy – 2005 has the long term goal of having a modern and efficient steel industry of world standard in India. The focus is to achieve global competitiveness not only in terms of cost, quality and product-mix but also in terms of global benchmarks of efficiency and productivity. It also generates employment opportunities for both technical & non-technical persons.