



Report to: Development Services Committee

Date: December 3, 2013

SUBJECT: Highway 7 - VIVA H3 Project - Sidewalk Installation.

PREPARED BY: Nehal Azmy, Senior Capital Works Engineer, Ext. 2197
Alain Cachola, Senior Manager Infrastructure and Capital Works, Ext. 2711

RECOMMENDATION:

- 1) THAT the report entitled "Highway 7 - VIVA H3 Project - Sidewalk Installation" be received;
- 2) THAT Staff be authorized to issue a purchase order to York Region Rapid Transit Corporation in the amount of \$495,558.00 inclusive of HST, for the construction of the following new sidewalks along Highway 7 (from Highway 404 to Town Centre Boulevard); South Town Centre Boulevard and Cedarland Drive as part of VIVA H3 project;
- 3) THAT the tender process be waived in accordance with Purchasing By-Law 2004-341, Part II, Section 7 Non Competitive Procurement Item 1 (g) which states "where it is in the City's best interest not to solicit a competitive bid."
- 4) THAT the Engineering Capital Administration Fee in the amount of \$37,166.85 inclusive of HST be transferred to revenue account 640-998-8871 (Capital Administration Fees);
- 5) THAT funding for the sidewalk construction be funded from account 083-5350-12051-005 (Sidewalk Program) in the amount of \$532,724.85, inclusive of HST impact;
- 6) AND THAT staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

The purpose of this report is to obtain Council approval to issue a purchase order to York Region Rapid Transit Corporation for the cost of constructing new sidewalks along Highway 7 (from Highway 404 to Town Centre Boulevard); South Town Centre Boulevard and Cedarland Drive as part of VIVA H3 Project.

BACKGROUND:

The VIVA H3 contract undertaken by York Region Rapid Transit Corporation (YRRTC) is currently underway and is anticipated to be completed in the last quarter of 2014.

The work includes streetscape improvements along Highway 7 Transitway corridor, between Highway 404 and Town Centre Boulevard, and also on Cedarland Drive and South Town Centre Boulevard. The enhanced streetscape elements include installation of new 2.0 metre wide sidewalks.

The 2013 Development Charges Background Study Update allocated specific funding for the installation of new sidewalk along Highway 7 from Montgomery Court to Town Centre Boulevard. The 2013 Development Charges Background Study also included miscellaneous sidewalk allowance to fund the sections of sidewalk along South Town Centre Blvd (Clegg Road to Cedarland Drive), Cedarland Drive (South Town Centre Blvd to Warden Avenue) and Hwy 7 east of Highway 404 E-S ramp.

These sidewalks are new infrastructure to be funded by City Wide Hard Development Charges.

York Region Rapid Transit Corporation has requested reimbursement for the costs of installing new sidewalks as per attached August 23, 2013 letter (Attachment A).

A detailed breakdown of the new sidewalk locations along with the construction costs was provided by York Region Rapid Transit Corporation (Attachments B and C).

OPTIONS/DISCUSION:

On September 25, 2012 and October 22, 2013 York Region Rapid Transit Corporation updated Council on the VIVA H3 project and details of the streetscape improvements including installation of new 2.0 metre wide sidewalks. The enhanced streetscape elements will result in a higher quality of public realm and are in line with Markham Centre Streetscape Standards.

As part of this contract, York Region Rapid Transit Corporation has requested that Markham fund the new sidewalk installation for the section of the roads that currently do not have sidewalks within the project limits, as new sidewalks are normally funded by local municipal development charges. Existing sidewalks to be replaced or relocated due to VIVA work are VIVA's responsibility.

There is a benefit of this work being carried out as part of the larger VIVA design/build project as it results in time saving resulting from the coordination of the design and construction of two contracts. In addition, due to constructability issues Markham cannot carry out a separate public tender to retain a contractor to install sidewalk until VIVA's contractor has left the site which would result in further disruption to traffic and additional restoration costs.

The unit price provided by VIVA, based on their design/build contract to supply and install a 2.0 metre wide sidewalk is \$158.75/linear meter plus 25% for design, construction administration and bonds for a total of \$198.43/linear meter.

VIVA's cost for sidewalk construction is based on a tender process carried out by Kiewit-EllisDon (Design-Builder for the VIVA H3 project) and was awarded to the lowest priced bidder.

Viva has requested the recovery of the portion of these new sidewalks in an amount equivalent to the development charges that have been collected (Attachment 'A'). The amount being recommended for recovery is based on the values included in the Development Charges Background Study. The City will benefit by the sidewalks being constructed at an earlier date, which will eliminate higher costs and dislocation to the commuting public if the project were to be done in 2016. The City will also recover the costs through future development charge collections.

The costs allocated in the 2013 Development Charges Study Update (City Wide Hard) for new sidewalk along Hwy 7 from Highway 404 to Town Centre Boulevard, South Town Centre Blvd (Clegg Road to Cedarland Drive) and Cedarland Drive (South Town Centre Blvd to Warden Avenue) is in the total amount of \$555,024.96, (Attachment D).

The \$555,024.96 includes a section of Hwy 7 (Montgomery to Rodick - North Side) that is to be funded from Non-growth reserve (\$47,604.48). The actual available funding from Development Charges is \$507,420.48.

Comparative Cost Analysis

	Unit Price / linear meter	Total Costs (including HST)	Description
VIVA Quote	\$ 158.75 Supply and install	\$ 407,182.46	Total sidewalk length is 2565.0m
	\$ 39.69 25 % mark-up (Design, CA and Bonds)	\$ 101,795.62	
	\$ 198.43 Total Unit Price	\$ 508,978.08	190mm deep concrete sidewalk with wire mesh
	\$ 23.81 Capital Admin fee (12%)	\$ 61,077.37	
	\$ 222.24 Total Unit Price (incl. Fees)	\$ 570,055.45	
Development Charges	\$ 160.00 Supply and install	\$ 410,400.00	As per Attachment "D"
	\$ 8.00 Contingencies @5%	\$ 20,520.00	
	\$ 25.20 Design and CA fees @ 15%	\$ 64,638.00	
	\$ 193.20 Total unit Price	\$ 495,558.00	Amount eligible for DC Funding is \$507,420.48
	\$ 23.18 Capital Admin fee (12%)	\$ 59,466.96	
	\$ 216.38 Total Unit Price (incl. Fees)	\$ 555,024.96	
Markham Recent Tenders	\$ 137.38 Supply and install	\$ 352,369.44	125mm deep concrete sidewalk
	\$ 13.74 Contingencies @10%	\$ 35,236.94	
	\$ 18.13 Design and CA fees @ 12%	\$ 46,512.77	
	\$ 169.25 Total unit Price	\$434,119.15	
	\$ 20.31 Capital Admin fee (12%)	\$ 52,094.30	
	\$ 189.56 Total Unit Price (incl. Fees)	\$486,213.45	

If the City decided to construct the sidewalks on its own, the earliest construction start date would be spring 2016 whereas VIVA would be able to complete the sidewalk construction by the end of 2014. The delay for Markham to carry out the work would be attributed to the current sidewalk backlog, the tendering process to retain both a consultant and contractor to complete the works and also the constructability issues

whereby two contractors cannot be on one site at the same time. Additionally, waiting two (2) years to construct the sidewalk is not recommend as there is risk of price increases in 2016 due to concrete pricing and inflation.

The comparative analysis above provides a comparison in costs however the sidewalk construction utilized by the City and VIVA differ in that the sidewalk construction utilized by VIVA is thicker (190mm vs. 125mm) and requires reinforced wire mesh due to heavier traffic.

FINANCIAL CONSIDERATIONS:

The recommended funding for this work was already transferred and included under the Engineering Department Capital budget accounts # 083-5350-12051-005 (Sidewalk Program) as detailed below.

Original budget and account #	\$ 2,032,600.00	083-5350-12051-005 (Sidewalk Program)
Current budget available	\$ 1,451,047.37	
Less cost of award	\$ 495,558.00 \$ 37,166.85	Cost of Award (inclusive of HST) Internal Management Fee @ 7.5%
	\$ 532,724.85	Total Project Cost (Inclusive of HST)
Budget remaining after this award	\$ \$918,322.52	*

*Upon payment of all invoices and capital administration fees, the remaining balance will be used for other sidewalk installation as budgeted for within this account.

The recommended funding for this work was already transferred and included under the Engineering Department Capital

ALIGNMENT WITH STRATEGIC PRIORITIES:

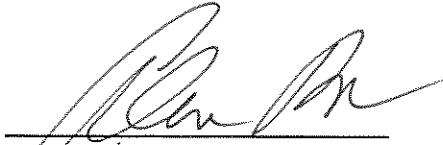
Highway 7 is an important arterial route that provides for travel by a high volume of daily commuters through York Region. By implementing enhanced streetscape elements, the corridor is improved for pedestrian and cyclist use. The project supports the City's strategic priorities including Growth Management, Transportation/Transit, and Environmental Sustainability.

BUSINESS UNITS CONSULTED AND AFFECTED:

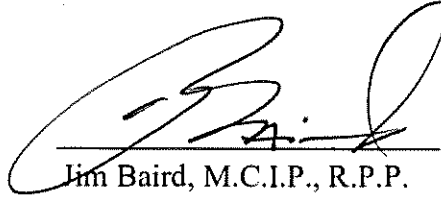
The Finance Department has been consulted and their comments have been incorporated.

RECOMMENDED BY:

RECOMMENDED BY:

A handwritten signature in black ink, appearing to read 'Alan Brown', written over a horizontal line.

Alan Brown, C.E.T.
Director of Engineering

A handwritten signature in black ink, appearing to read 'Jim Baird', written over a horizontal line.

Jim Baird, M.C.I.P., R.P.P.
Commissioner of Development Services

ATTACHMENTS:

Attachment A – Letter from York Region Rapid Transit Corporation

Attachment B – Breakdown of sidewalk installation

Attachment C – Area Map – New Sidewalks

Attachment D – Development Charge Cost for Sidewalk Installation on Hwy 7



November 15, 2013

Alan Brown
Director of Engineering
City of Markham
101 Town Centre Boulevard
Markham, ON L3R 9W3

Dear Mr. Alan Brown:

Re: Sidewalk Development Charges (Highway 7, South Town Centre Boulevard and Cedarland Drive)

Construction of new sidewalks will be built on Highway 7 between Highway 404 and Town Centre Boulevard, and also on South Town Centre Boulevard and Cedarland Drive. York Region Rapid Transit Corporation's Design Build Project (H3 Project) will include the introduction of new 1.5 to 2.0 metre wide concrete sidewalks for pedestrian use in the City of Markham. The total length of new sidewalk is 2565 m and the total costs is \$500,175. It is our understanding that the City of Markham has collected development charges for those sections of roads that do not currently have sidewalks. YRRTC wishes to recuperate the portion of the costs for construction of these new sidewalks in an amount not exceeding the equivalent to the development charges that have been collected.

Please confirm if you are in agreement with this understanding and if so, then we request a purchase order from the City of Markham for this amount.

If you are in agreement then please
send the purchase order to:

York Region Rapid Transit Corporation (YRRTC)
Attention: Paul May
3601 Highway 7, Twelfth Floor
Markham, ON L3R 0M3

Should you have any questions on the above, please do not hesitate to contact the undersigned at (905) 886-6767, extension 1030.

Yours truly,

Paul May, P.Eng

Chief Engineer - York Region Rapid Transit Corporation (YRRTC)

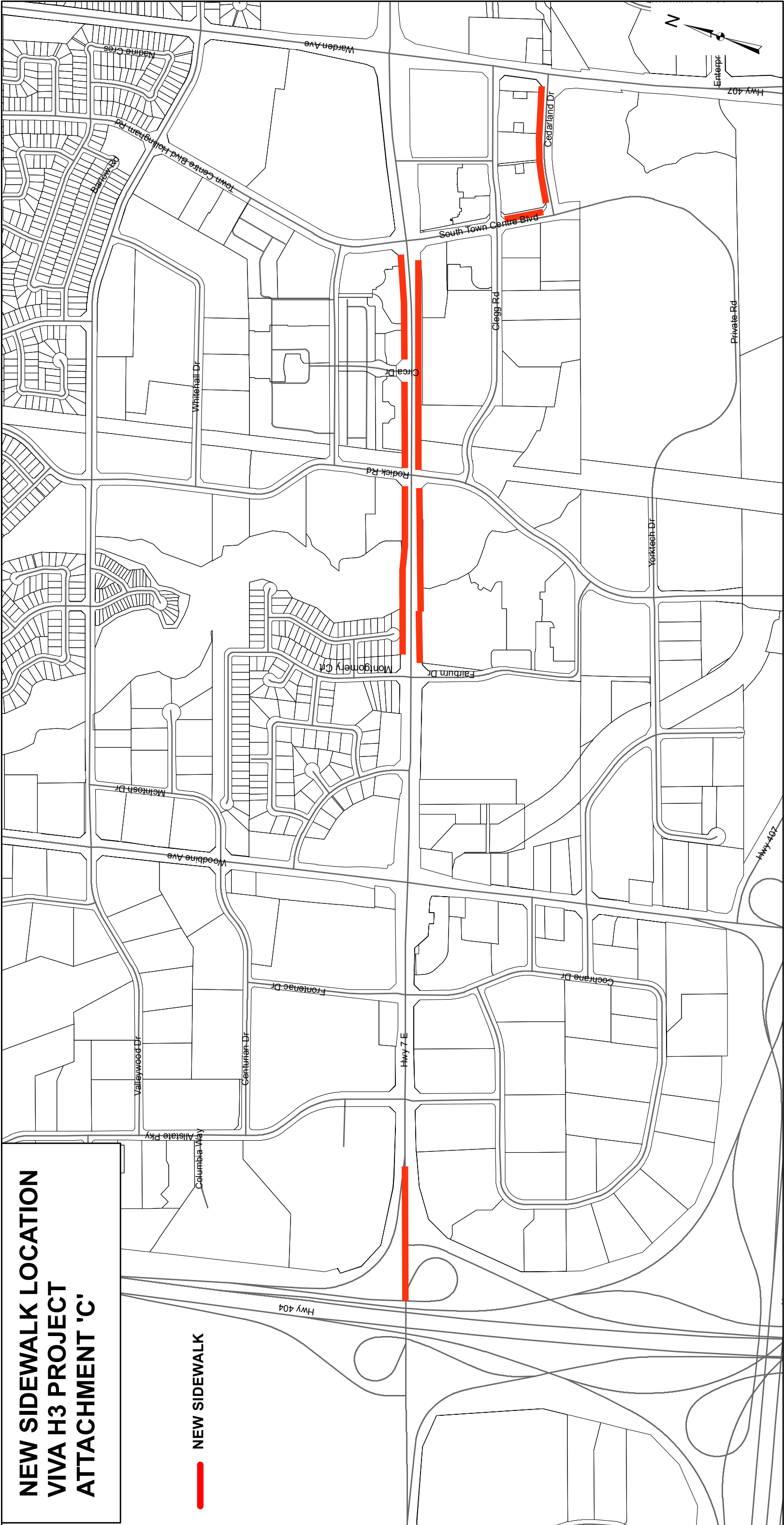
cc Nehal Azmy (City of Markham)
Nixon Chan (MMM Group)
Matthew Hum (YRRTC)

ATTACHMENT "A"

YRRTC Sidewalk Recovery from the City of Markham

Street	Section	Starting location	Starting STA	Ending Location	Ending STA	Sidewalk Length (m)	Notes	Unit Price (\$/m) plus Fees	Total Costs (excl HST)
Hwy 7	1	(MTO) E-S Ramp	36+765	(MTO) E-N Ramp	37+100	335	North side of Hwy 7	\$195	\$65,325
	2	Montgomery Crt	38+485	Rodick Rd	38+925	440	North side of Hwy 7	\$195	\$85,800
	3	Fairburn Dr	38+475	First Markham Plaza Entrance	38+540	65	South side of Hwy 7	\$195	\$12,675
	4	First Markham Plaza Entrance	38+560	Rodick Rd	38+910	350	South side of Hwy 7	\$195	\$68,250
	5	Rodick Rd	38+980	Circa Blvd	39+185	205	North side of Hwy 7	\$195	\$39,975
	6	Rodick Rd	38+970	South Town Centre Blvd	39+485	515	South side of Hwy 7	\$195	\$100,425
	7	Circa Blvd	39+230	South Town Centre Blvd	39+490	260	North side of Hwy 7	\$195	\$50,700
	8	Clegg Rd	9+755	Cedarland Dr	9+660	95	East Side of STC Blvd	\$195	\$18,525
	9	Cedarland Dr	10+020	Warden Ave	10+320	300	North side of Cedarland Dr	\$195	\$58,500
					Total	2565			\$500,175

ATTACHMENT "B"



Development Charge Cost for Sidewalk Installation along Hwy 7, South Town Centre Blvd and Cedarland Drive									
	Length (m)	Construction \$/m	Contingency 5%	Eng. Fee 15%	Sub-total	Admin Fee 12%	Total	Development Charge %	DC Cost
HWY 7 - East of HWY 404 (E-S) Ramp	335	\$ 53,600.00	\$ 2,680.00	\$ 8,442.00	\$ 64,722.00	\$ 7,766.64	\$ 72,488.64	100%	\$ 72,488.64
HWY 7 (Fairburn Drive to Rodick Road - South Side)	415	\$ 66,400.00	\$ 3,320.00	\$ 10,458.00	\$ 80,178.00	\$ 9,621.36	\$ 89,799.36	100%	\$ 89,799.36
HWY 7 (Montgomery Drive to Rodick Road - North Side)	440	\$ 70,400.00	\$ 3,520.00	\$ 11,088.00	\$ 85,008.00	\$ 10,200.96	\$ 95,208.96	50%	\$ 47,604.48
HWY 7 (Rodick Road to Warden Ave - Both sides)	980	\$ 156,800.00	\$ 7,840.00	\$ 24,696.00	\$ 189,336.00	\$ 22,720.32	\$ 212,056.32	100%	\$ 212,056.32
South Town Centre (Clegg Road to Cedarland Drive - East Side)	95	\$ 15,200.00	\$ 760.00	\$ 2,394.00	\$ 18,354.00	\$ 2,202.48	\$ 20,556.48	100%	\$ 20,556.48
Cedarland Drive (South Town Centre Blvd to Warden - North Side)	300	\$ 48,000.00	\$ 2,400.00	\$ 7,560.00	\$ 57,960.00	\$ 6,955.20	\$ 64,915.20	100%	\$ 64,915.20
TOTAL	2565				\$ 495,558.00	\$ 59,466.96	\$ 555,024.96		\$ 507,420.48